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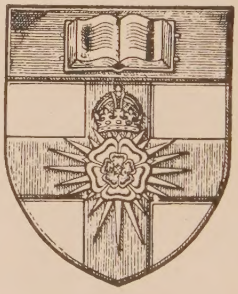

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THE SURVEYORS' INSTITUTION

(*Incorporated by Royal Charter*),

12, GREAT GEORGE STREET, WESTMINSTER, S.W.

TRANSACTIONS.

VOL. XX.

SESSION 1887-88.

LONDON:

PUBLISHED AT THE INSTITUTION,

12, GREAT GEORGE STREET, WESTMINSTER, S.W.

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NOTICE.

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ERRATUM.

Page 368, line 11, for 1873 read 1783.

The Surveyors' Institution

(Incorporated by Royal Charter),

12, GREAT GEORGE STREET,

WESTMINSTER, S.W.

OFFICERS, 1887-88.

COUNCIL.

President.

WILLIAM JAMES BEADEL, M.P.

Vice-Presidents.

ELIAS PITTS SQUAREY
ROBERT COLLIER DRIVER
FRANCIS VIGERS
CHARLES JOHN SHOPPEE

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DANIEL WATNEY
JAMES MARTIN
HENRY JAMES CASTLE
ROBERT LAKE COBB
ALEXANDER MILNE DUNLOP
CHRISTOPHER OAKLEY
ROBERT VIGERS
THOMAS MILLER RICKMAN
ROBERT GEORGE CLUTTON
JOHN SHAW

Professional Associate of Council.

EDWARD SMYTH

Associates of Council.

JOHN WOLFE BARRY

SIR RICHARD EVERARD WEBSTER, Q.C., M.P.

Past-Presidents.

JOHN CLUTTON
EDWARD NORTON CLIFTON
WILLIAM STURGE
EDWARD RYDE
THOMAS SMITH WOOLLEY
EDWARD I'ANSON

Honorary Secretary.

JOHN WORNHAM PENFOLD

Secretary.

JULIAN C. ROGERS

The Surveyors' Institution

(Incorporated by Royal Charter)

Is established—

1. To secure the advancement and facilitate the acquisition of that knowledge which constitutes the profession of a Surveyor, viz.—the art of determining the value of all descriptions of landed and house property, and of the various interests therein; the practice of managing and developing estates; and the science of admeasuring and delineating the physical features of the earth, and of measuring and estimating artificers' work.
2. To promote the general interests of the profession, and to maintain and extend its usefulness for the public advantage.

The Institution consists of four classes, viz.—Fellows, Professional Associates, Associates, and Honorary Members, with a class of Students attached.

A Fellow must be more than twenty-five years of age, and must have acquired a practical knowledge of surveying in one or other of its branches as above defined; he must have so practised on his own account for more than five years; or must be a member of a firm of Surveyors established upwards of ten years; or in partnership with a Surveyor of ten years' standing;* or he must have passed the Voluntary Examination declared in the Rules of Examination to appertain to the class of Fellows. Fellows have the right, conferred by the Charter, to use the letters F.S.I. after their names.

A Professional Associate must be more than twenty-one years of age, a Surveyor by profession, in practice on his own account or employed as an Assistant in a Surveyor's Office and qualified for the class by having passed the Students' Proficiency Examination, or the Professional Associates' Qualifying Examination. Professional Associates have the right, conferred by the Charter, to use the letters P.A.S.I. after their names.

**These qualifications hold good until the provisions of the Charter relating to the Compulsory Examinations for Fellows come into force, in* 1891.

An Associate must be more than twenty-one years of age, not a Surveyor by profession, but his pursuits must be such as to qualify him to concur with Surveyors in the advancement of professional knowledge.

An Honorary Member must be a person who, either by reason of his position or experience, or his eminence in science, may be enabled to render assistance in promoting the objects of the Institution, but who is not engaged in practice as a Surveyor in Great Britain or Ireland. He has the privilege of being present and taking part at all Ordinary General Meetings, and of access to the Library, but no right of voting, discussing, or otherwise interfering in the affairs of the Institution; nor is he called on to contribute to its funds.

Students (who must not be under eighteen years of age) qualify as such by passing the Students' Preliminary Examination. Candidates for Studentship who can produce a Certificate of having passed the Matriculation Examination of the University of Oxford, Cambridge, London, or any other University in the United Kingdom, or who have passed, with Honours, the Senior Local Examination of the University of Oxford or Cambridge, or who have obtained a Higher Certificate at the Examinations of the Oxford and Cambridge Schools' Examinations Board, are exempted from this Examination, and may be admitted by the Council on the recommendation (according to a form) of four Fellows and two Associates, or of the Fellow or Associate to whom they are or have been articled; but it is obligatory on all Students to undergo the Proficiency Examination at the close of their Student course, at the time and under the conditions applying in each particular case under the Rules of Examination.

The Council may accord to Students such privileges, subject to such terms, regulations, and restrictions, as they shall from time to time prescribe.

Any person desirous of being admitted into the Institution (excepting to the class of Students) must be proposed and recommended according to a form, in which the full name, place of business (if any), usual residence, and qualifications of the candidate must be distinctly specified. This form must be subscribed by him, and signed by at least six Fellows or four Fellows and two Associates, certifying a personal knowledge

of the candidate; or, in the case of a person who has passed the Qualifying Examination, by four Members of the Council, of whom the President shall be one, after careful enquiry into the antecedents of the applicant.

The proposal so made, being delivered to the Secretary, will be submitted to the Council, who, on approving the qualifications, will determine the class for which the candidate is to be presented for ballot at an Ordinary General Meeting.

The following are the rates of contribution to the funds :—

	Annual Subscription. £	s.	d.	Admission Fee. £	s.	d.
Student . . .	1	1	0	—		
Associate . . .	2	2	0	3	3	0
Professional Associate	2	2	0	3	3	0
Fellow . . .	3	3	0	5	5	0

No person can become a Member (other than an Honorary Member) of the Institution, unless and until he pays as his first Subscription to the Institution, in the case of becoming a Fellow of the Institution, the sum of Eight Guineas, in the case of becoming a Professional Associate of the Institution, the sum of Five Guineas, and in the case of becoming an Associate of the Institution, the sum of Five Guineas.

All Fellows, Professional Associates, and Associates, are required, within twelve months after their election, to deliver to the Council an original Paper on some subject connected with the profession, or to make a donation to the Library or Collection.

The affairs of the Institution are under the management of a Council, which is elected annually, consisting of a President, four Vice-Presidents, eleven Fellows, one Professional Associate, and two Associates.

The Session of the Institution commences annually on the second Monday in November, and continues to the end of May. The Ordinary General Meetings are held on every alternate Monday during the Session. At these Meetings original communications are read on some professional subject, and their merits fully and freely discussed. Every Member has the privilege of introducing one visitor to these Meetings. Members are entitled to a copy of any printed publication issued by the Institution after their admission.

Paper 147.
No. 249.

THE OPENING ADDRESS

BY

WILLIAM JAMES BEADEL, M.P., President,

AT THE ORDINARY GENERAL MEETING OF

THE SURVEYORS' INSTITUTION,

November 14th, 1887.

It is my first and most agreeable duty to express gratitude to the Members of this Institution for placing me in the Presidential Chair for a second term of office.

I do not disguise from myself the fact that the position I have the honour, by your indulgence, to occupy is one of great responsibility under any circumstances, but is doubly so in times like the present when what has been described as a vast economic revolution appears to be in progress, with results of a kind most disastrous in their immediate effects upon that important class of interests with which, as a body, we are mainly concerned.

It is hardly possible on an occasion like the present to keep entirely clear of controversial subjects, and if I should have occasion, later on, to touch upon one or two such topics, on which I cannot be altogether silent, it will be my endeavour to do so in such a way as to avoid wounding the susceptibilities of even the most sensitive of my professional brethren.

But, before turning to questions of a public character, let me refer very briefly to matters nearer home. I do not forget that with my present term of office closes the second

decade of our existence as an Institution. It is not necessary to dwell at length upon what has been accomplished during that comparatively brief period in the life of a professional society; but this may be said, without fear of contradiction, that this Institution is an instance of progressive prosperity difficult to match elsewhere, whether regard is had to its early Incorporation, to the status it has secured for its Members, or to the extent to which it represents the profession in whose interests it exists. I wish it were possible to look back over the twenty years of our annals with unmixed satisfaction. As in all human affairs, if we have successes to chronicle, we have also losses to deplore. Happily, our first President is still with us, and long may he remain so; but we cannot help calling to mind on occasions like the present the many honoured contemporaries who have assisted in building up this Institution, and who are no longer by our side. To those who have passed away previously to my presidency tributes have been paid in the Addresses of my predecessors: it is my duty to refer, with regret, to the further losses we have sustained during the past year by the death of our Past-President, Mr. Huskinson, and one of our Members of the Council, Mr. W. Fowler. The former will be long remembered for his gift of facile speech and the geniality of his manners, and the latter for his great natural sagacity and the uprightness and integrity of his professional character.

Before passing to more special subjects, let me refer to an event which makes the year 1887 an "annus mirabilis" in our history—I allude to the Jubilee of the reign of one of the most illustrious and most beloved of Sovereigns. This Institution, incorporated under a Royal Charter granted by Her Majesty, availed itself of the opportunity of assuring Her, in a dutiful Address, that the surveyors of England were among the most loyal and devoted of Her subjects.

The mention of the Jubilee year naturally leads one's thoughts to the vast changes in all matters relating to property which have taken place during the fifty years of Queen Victoria's reign. This period (comparing great things with small) as nearly as possible coincides with the age of the Land Surveyors' Club, which was, in a certain sense, the nucleus out of which this Institution was developed. It is no reflection on the memory of those who founded that Club to say that they would have been astonished could they have foreseen the enormous multiplication of transactions in every kind of property which has distinguished the intervening period of fifty years, and which all fall more or less within the province of the surveyor of the present day.

This great increase in the extent and variety of the surveyor's duties necessitates a more careful and accurate training for his life's work; and it is the boast of this Institution that it made haste to recognise the fact by making provision for the careful education of its professional successors. Among the Students whom I see before me is seated, no doubt, a future President of this Institution. If so, I hope and am sure that he will remember in his Inaugural Address to do us the justice of admitting that we did the best we could in our day to secure for those who will follow us the position to which we consider the surveyor entitled, but which he cannot attain without the special and exact training long looked upon as necessary in other professions.

It is impossible to exaggerate the importance of our Examinations with reference to the future of the Institution. When we applied for and obtained our Charter of Incorporation in 1881, it was resolved, after long and careful consideration, to postpone the compulsory Examination for Professional Associates for three years from the date of the Charter, and for Fellows for ten years from the same date,

meanwhile introducing both Examinations in a voluntary form, in order to avoid the shock of a sudden transition from the old state of things to the new. Ten years seemed a period remote enough in 1881, and, as a matter of fact, was looked upon as too remote by some of the more sanguine promoters of our Examination system. More than six years of this period have, however, since expired, and we are now, so to speak, almost within sight of the time when our system of admitting Members will undergo a complete change by the operation of Clause 29 of our Charter, which finally closes, in a year or two's time, the access to Professional Membership against all who are unwilling to submit themselves to the Examination tests. It has never been, and I trust never will be, the policy of this Institution to canvass for new Members; but it is only just to remind those of our professional brethren who are eligible for Membership, but who, being of mature years and of established professional position, are not likely to offer themselves for examination, that the period within which they can join the Institution without examination is rapidly drawing to a close under the terms and conditions of the Charter. I find that an impression prevails to some extent that the compulsory Examination for Fellows has already come into force; and I think it well, therefore, by this explanation to dispel the misapprehension.

It will be of some interest to review the progress made during the last six years towards leavening the Institution with examined men, in anticipation of the more exclusive system towards which we are hastening. Since the year 1881 503 candidates of all classes have offered themselves for Examination, of whom 345 have satisfied the Examiners. Of those 345, 185 were candidates for Studentship and 160 for Professional Membership. Of the 160 who have passed the Professional Qualifying Examinations, 127 (a

large proportion) have since been elected, or are in process of election, as Members, and a large majority of the remaining 33 are taking steps for joining the Institution. Placing these 127 Members by Examination, in comparison with the whole Professional Membership (excluding Honorary Members, Ordinary Associates, and Students), it appears that the Members who have actually qualified by Examination, at the present date, already amount to nearly 15 per cent. of the whole Professional Membership, which, as I have already said, represents a very respectable leaven of the new order of things. This calculation also leaves out of account about 100 Students who have already passed the first step in the Examination system.

It is impossible to forecast what the total increase in the number of Members will be (it will probably be considerable) in the next four years, but assuming, as we are justified in doing by statistics, that not less than 40 will pass the Professional Examinations during each of those four years, it will be seen that we shall have on our Register at the end of the period the names of upwards of 300 Members possessing a certificate of having passed an Examination of the most exhaustive but most practical description in every kind of professional knowledge not absolutely dependent upon long experience.

It may be stated in connection with our Education system that the Institution carefully abstains from anything in the nature of teaching-functions, and it is, therefore, with the greatest satisfaction I record the fact that the most cordial working relations exist between ourselves and valuable centres of professional instruction such as the Royal Agricultural College, Cirencester, and the College of Agriculture, Downton.

Altogether, the Institution has reason to be proud of the success which has attended its efforts to secure a sound

technical education for the rising generation of surveyors—a success far beyond the most sanguine anticipations—and it only remains to urge all surveyors and land-agents of standing (whether Members or not of the Institution) to co-operate with the Council in this direction by seeing that their sons, their pupils, and their assistants do not lose the opportunity which our Examination system offers of obtaining certificates of competency, the value of which, in relation to their future career, must be admitted.

I have spoken of the multiplication of the surveyor's duties and responsibilities during the last half-century. This period has witnessed the construction of nearly the whole of the network of railways with which our country is covered, as well as various other colossal undertakings, the capital in railways authorised down to 1837 having been 43½ millions only, whereas now the amount so invested considerably exceeds 800 millions. The extent to which the skill of the surveyor has been in requisition and the various intricate problems with which he has had to deal are subjects upon which I must not detain you, though, perhaps, I ought not to omit a passing reference to the undertaking of one of our Past-Presidents, the late Mr. E. J. Smith, in the valuation of the property of the London Water Companies for the then Government, and whose life was, I fear, sacrificed by the strain which the work involved. The wisdom and sound judgment he displayed in the advice then offered will one day be realised when greatly-increased compensation will have to be paid for accomplishing the same result.

During these fifty years improvements of an important character have also been going on in London. The enormous extent of these improvements will be partly realised when we call to mind the fact that at the commencement of the period a new street, described as leading from the Bank of England to Finsbury Square (Moorgate Street),

had only just been made, while Queen Victoria Street, the Thames Embankment, Victoria Street (Westminster), Shaftesbury Avenue, and many other main thoroughfares have all since been formed. These improvements, to say nothing of such expensive and spirited public movements as the freeing of the Metropolitan Bridges, the acquisition of Epping Forest, Finsbury Park, Burnham Beeches, and other health-giving open spaces, have opened up a wide field of employment for the surveyor, demanding on his part the exercise of that peculiar combination of technical knowledge and general business capacity which constitutes his value as a co-worker in all great operations of the kind. In the vast extension of the Metropolis, north, south, east, and west, surveyors have also played an important part. When it is remembered that High Street, Islington, in the north, Vauxhall Gardens in the south, Stepney Green in the east, and on the west Edgware Road, practically formed the boundaries of London proper in 1837, and that Belgravia was not in existence, we can form some idea of the extension referred to.

Nor has the exercise of the surveyor's skill and knowledge been limited to the Metropolis. It is unnecessary to remind you of the great improvements and extensions which have taken place in Liverpool, where so large an area of dock accommodation has been provided, Birmingham, and other large towns, and to the rising up, as if from the ground, of towns equal to and exceeding in size our older cities. Nor must mention be omitted of the important part which surveyors took in the commutation of tithes, the inclosure of open lands, and, more recently, in the various matters relating to sanitary arrangements, the acquiring of land for sewage purposes, and the very important question of the rating of railways and other public works.

The calling into existence of the Metropolitan Board of

Works, and the framing of the various Building Acts which have been passed for the Metropolis, and which have formed to a great extent the basis of the by-laws adopted throughout the country, also mark a great advance.

I have dwelt at some length upon these matters because I desire to point out, for the encouragement of the rising generation, that the surveyor has occupied, and is destined still to occupy, an indispensable position in every great work of public improvement involving dealings or interference with any kind of property.

The enormous increase in the value of land in the City of London since the Queen's Accession is well known to many of you, but one or two illustrations may not be uninteresting. The gross rateable value of the City (about 703 acres in extent) was in 1837, as far as I can ascertain, under one million, while in 1887 it amounted to nearly four millions. Nos. 149, 150, and 151, Aldersgate Street, and land at the back near the General Post Office, area 15,500 feet, sold by auction in 1836 for £9,000, equal to about 11*s.* 6*d.* per foot, or about 2 years' purchase upon the present rental value. In Cornhill a property let in 1837 at 4*s.* 8*d.* a foot is now let at £1 6*s.* per foot. In Lombard Street the value of land at that time was probably £5 per foot; recently as much as £75 per foot has been paid for a small area under exceptional circumstances, but £40 per foot is not an unusual price. Land in the more distant suburbs of London, which would now be worth from £1,500 to £2,000 an acre, realised, in blocks of from 10 to 40 acres, between £50 and £60 an acre; and similar instances of the great increase may be given to any extent.

It would be a source of great satisfaction to me personally were I able to say that purely agricultural land had even steadily increased as, surely, should have been the case, instead of which the value ten years since, from 50 to 100

per cent. above that in 1837, has fallen to a lower level than that from which it rose. Yet, notwithstanding that in these fifty years there has been great progress in cultivation, great improvements in the construction of buildings; that large sums have been expended in draining on the most approved principles, in the reclamation of land by inclosure or warping, and in the better utilisation of manure; that the estimation of the manurial value of feeding-stuffs has been made a science; that machinery, such as ploughs, drills, threshing and reaping machines, some of them introduced, others perfected (to say nothing of steam-cultivation, silos, and various other improvements), has become so common, is it not a fact that we are in a worse position than the agriculturists of fifty years ago? No doubt they also had their times of serious depression, arising principally from bad seasons and occasional low prices, but they were compensated and reimbursed by years of plenty and profit. This is no longer the case.

The past year has unquestionably been a most trying one, prices for stock, corn, and all kinds of produce having been excessively low, and the statement has been commonly heard that one could get nothing for that which one had to sell. Although a good crop of wheat will compensate to a certain extent for deficiency in spring corn, on the whole, it has been with difficulty that the balance has been kept on the right side, and in many instances this result cannot have been attained. The organisation of milk-producers with a view to obtain better prices, shows they are now feeling the pinch more than has hitherto been the case; and the producers of fruit and garden produce have also had reason to complain. My impression is that prices (excepting for wheat and barley) will be somewhat higher, but I should only deceive those who have not the experience of some of us in these matters if I stated that the outlook, from an agricultural point of

view, is other than a gloomy one, and after all, discouraging as it may seem, it is better the truth should be told.

There is, however, one feature to which I am glad to refer, viz., the way (right noble in many cases) in which landowners, as a rule, have met their tenants, our large hereditary landed proprietors standing in the forefront in sympathy and practical consideration: also the manly way in which tenant-farmers, almost without exception, have endeavoured to face the difficulties with which they have had to contend, and their appreciation of the assistance afforded them. When better times return, the present state of things will leave one happy legacy—a cordial recollection on both sides of common misfortunes met with common sacrifices and a spirit of mutual help.

The serious nature of the competition to which agriculturists are now subject through the opening up of unlimited tracts of virgin soil, cheap labour in India, and the application of steam, will be better understood when we remember that in 1837, with a population of over 25 millions, we had to import, after deducting the quantity re-exported, only 250,000 quarters of foreign wheat—strange to say, a not inconsiderable part of that re-exported found its way to the American Continent—so that with the produce of Great Britain and Ireland we were then able to feed as nearly as possible the whole of the population, while in the past year we imported 17,000,000 qrs. out of a total estimated consumption of 24,500,000 qrs., thus showing that we now only provide bread for a population of about ten millions.

Has not the time arrived when we should consider this fact, that with all the productive capabilities of our own soil we are compelled to import food to the value of £3 10*s.* per head of our population, whilst Germany only imports at the rate of 7*s.* per head. Corn alone to the value of over

fifty millions a year is imported, a large part of which could, with the greatest advantage to all classes, be grown at home. An article in the *Times* of the 8th inst. is well worth attention, and I will read an extract from it:—

"The public assign little importance to the serious dimi-
"nution of the wheat-growing area of the kingdom. The
"fact that in 16 harvests the annual wheat crop of the
"United Kingdom has shrunk from 3,981,989 acres in 1869
"to 2,553,092 acres in 1885, means that the bread-corn
"produce of 1,503,671 acres, which may average 5,000,000
"or 6,000,000 quarters per annum, has to be replaced by
"importation. This larger deficit, to be made up by in-
"creased purchase from abroad, would not appear of such
"great consequence (in the present position of possible supply)
"if the acres abstracted from home wheat production were
"devoted to the growth of other corn, which might still
"maintain an equal force of manual labour on the same land.
"But in the period of 16 years the reduction of the wheat
"area has been accompanied by a shrinkage of the total corn
"area of the United Kingdom, yielding wheat, barley, bere,
"rye, oats, peas, and beans, from 12,000,111 acres in 1869 to
"10,014,625 acres in 1885, being a loss of 1,985,486 acres
"or 16·5 per cent. This vast acreage has disappeared from
"the annual breadth which employs the greatest number of
"labourers per acre. Taking England alone, we find that
"fully one-seventh of the country has gone out of corn
"cultivation; while in Wales the proportion of corn culture
"sacrificed is still greater, and in Ireland considerably more
"than a quarter of the whole grain-growing area is lost."

Had Sir Robert Peel and those who supported him foreseen that the cost of transit would cease to be equal to a 10*s.* duty, as he stated would be the case, and had he realised that the present state of things could arise, I cannot for one moment believe the corn-laws would have been

entirely repealed. In saying this much, I desire not to trespass upon the privilege attaching to this Chair. Believing the question to be a national and not a political one, I offer no apology for thus alluding to it.

The trammels which once interfered with the free sale of land may have been said to be practically removed by recent legislation. Facilities of transfer have also been promoted, and the expense reduced. The abolition of the auction-duty has itself afforded considerable relief. On an estate in Hampshire, purchased by a late client of mine in 1836 for £53,400, a duty of £1,557 10*s.* was paid. As some of the younger Members may not be aware of this tax having existed, I note the fact for their information.

Notwithstanding these alterations, the result of the existing state of things is, as I have already stated, a considerable reduction in the fee-simple value of land; and, although I do not say the uncertainty as to legislative interference with liberty of contract has not somewhat contributed to this result, I do not consider it the important factor.

Having the honour of a seat in the Lower House of the Legislature, you will probably expect me to say something of what has occurred there affecting agriculture and the land question. The Government, although pressed, were, I regret to say, either not prepared or felt themselves unable to propose any remedy for agricultural depression, the Irish question, as you know, monopolising the greater part of the Session, much to the detriment of English legislation. A remedy in the forthcoming Session will, I hope, be found for this state of things, so that the interests of the other parts of the United Kingdom may receive proportionate attention.

A subvention, in aid of local rates, was secured, which will be found of advantage to owners and occupiers of land. Some excitement was caused by the Hessian-fly scare,

which will pass away. The Railway Rates Bill had to be abandoned; the appointment of a Minister of Agriculture was, to say the least, postponed, and no serious attempt beyond that to which I have referred was made towards securing a transfer of some of the burdens from land to other classes of property which, as things are, must ere long become a prominent question. Bills were, as you know, brought in for amending the Agricultural Holdings Act, and for giving further security to occupiers—very considerate in intention, but doubtful as regards the requirements of the parties principally interested. A discussion as to the compulsory cultivation of waste land was again initiated, supported only by those absolutely and utterly ignorant of land or its user, with the result which a motion of the kind deserved—signal failure. An Act was passed for securing compensation to tenants of allotments and cottage-gardens for crops and fruit-trees left on quitting, probably a somewhat harmless measure, though not of general application.

The Allotments Act, which was warmly debated, is intended to place in the hands of local authorities power to acquire suitable land for reletting in plots not exceeding one acre. I have no wish to disparage legislation which has for its object the affording of facilities for the cultivation of the soil, and trust it may accomplish the object desired; but it appears to me highly improbable that the compulsory powers of the Act will be put into force other than to a very limited extent, ratepayers not being likely to willingly assume the burden of additional taxation for such a purpose, and I cannot help thinking the Act will require amending in some important particulars.

The experience of small occupiers in France (not to mention Russia) does not afford encouragement to hope that proposals of this nature are likely to be of universal benefit. Times such as these through which we are now

passing, difficult as they are for large occupiers with every facility which machinery and economical working can afford, are not to be met by such schemes; and the time of the legislature would, in my judgment, be more wisely occupied in considering measures likely to afford real relief to an industry which is essential to the prosperity of the country, and thus save it from ruin. The provision of "three acres and a cow," where pasture land predominates, is more politic; the difficulty is to set apart grass in convenient positions, arable bearing so large a proportion.

On the land question generally, it was probably a pity the Transfer Bill had to be abandoned; anything which will facilitate transfer being, from our point of view, of the greatest advantage. The Tithe-Rent-Charge Bill, I confess, did not commend itself very much to me, although it will, undoubtedly, become necessary for landlords to pay that charge, and I should recommend Members to adopt this plan as far as possible. The proposals for altering the incidence and making the owner personally liable appear to me cumbrous in their nature and likely to lead to litigation and disputes. On the whole, I do not expect to see the Bill passed, except in a modified form. Compulsory redemption, if practicable on an equitable basis, may possibly solve the difficulty. I have doubts as to the basis, but discussion upon these points must, of necessity, open up far wider questions; and I know no Institution able to throw so much light upon the subject as our own.

Upon the question of Leasehold Enfranchisement, Town Holdings, and the Taxation of Ground-Rents, as a Member of the Committee appointed to hear evidence and report, I do not feel at liberty to enter. Perhaps it may be said, without breach of confidence, that one of the promoters for the purpose of enfranchisement is prepared to limit the operation of the principle to houses occupied by the working

classes, or of £20 annual value. Important evidence upon the subject has been given by some of our Members.

The Select Committee on Forestry, to which I alluded last year, being reappointed, held another series of sittings, during which Mr. JOHN CLUTTON and another of our Members, Mr. EVAN POWELL, were called upon to give evidence, and a report of considerable value and interest has been issued, taking up very much the line of the views put forward by our Secretary, Mr. ROGERS.

The Committee, whose recommendation cannot be said to err on the side of extravagance, were apparently not altogether satisfied as to the possibility of establishing a School, and propose, as an intermediate step, to constitute a Board of Forestry, composed of delegates from various bodies, such as the Royal Agricultural Society of England, the Highland and Agricultural Society of Scotland, and this Institution. A Board so constituted would, no doubt, be better fitted for dealing with the subject than a Sub-Department of State, and might be trusted to carry on its operations on sound and practical lines, and with a view to actual needs and possibilities. Steps are, I understand, being taken to ascertain the extent to which the Societies invited to send Delegates to the Board are prepared to co-operate in giving effect to the recommendations of the Committee. I believe I am not saying too much on behalf of our Institution in stating that we shall be willing to do anything in this or in any other way which may seem to offer a prospect of bringing relief, however small, to the landed interests of this country.

The Manchester Ship Canal, after being steered through many vicissitudes, obtained the sanction of Parliament; and it seems strange that, although fifty years ago the necessary surveys were made for a similar undertaking, it should only now be about to become an accomplished fact. As

the scheme will, of necessity, require the skill of the surveyor for its development, we may congratulate ourselves that it has been reserved until the year 1887 when there are a limited number of public undertakings to occupy our attention.

Another scheme which received Parliamentary sanction will, if carried out, be the means of placing the building in which we assemble in a more prominent position, and will enable us to improve our external appearance and enlarge the accommodation for Members.

You will, no doubt, expect me to say something about the future, and here I find myself confronted with problems which only time will solve.

In our cities and towns, as well as villages, there is still much to be accomplished in the way of improved sanitary arrangements and the provision of suitable dwellings for the working classes, and I look forward to the time when the sewage of the Metropolis and other places shall by some means find its way to the land instead of being regarded as comparatively useless. Experiments are daily in progress which I hope may lead to a practical and beneficial result.

From an educational point of view, efforts will be made to impart further knowledge of practical and scientific agriculture, and something will be accomplished by increased attention to matters relating to the productions of the dairy, in which we ought not to be beaten off the field.

In what direction are we to look for revived prosperity in agriculture, and what efforts shall be made to bring it about? Diminished production of wheat in foreign countries? Realising that we are beaten in its growth at home, and abandoning it altogether? Revival in trade? Reform in Local Government? Modification in taxation? The revision of railway rates? The readjustment of rents, or the abolition of the present landlords and the setting-up of

State ownership? What a vast field for aspirants to fame or oblivion!

So far as my judgment goes, and I believe many will agree with me, neither of these offers a panacea, and I confess to having little patience with those who should be leaders sitting by and witnessing contentedly the sacrifice of the landed interest and the loss of the tenants' capital, and having nothing better to offer than such illusory proposals. From a national point of view, our dependence upon other countries for the supply of bread-stuffs is, in my humble judgment, a grievous mistake, which sooner or later will be realised. From a national point of view, the growth of wheat should be encouraged to the utmost extent, and made reasonably profitable, for by this means, prosperity will be restored to agriculture, full employment be secured, wages will increase, trade revive, the nation be benefited, and land again resume its proper position, as the best and safest security—a position which every Englishman, in the interest of his country, should earnestly desire and use his best efforts to secure for it.

Mr. E. P. Squarey (Vice-President) was glad to have the privilege of proposing a vote of thanks to The President for his most comprehensive and suggestive Address. Those who listened to that Address must have longed, like himself, for pauses in its delivery, to enable them to digest the large quantity of matter which it embraced. He looked forward, however, to the opportunity which a few days would afford of considering at leisure the many subjects for reflection which it contained.

No one could agree more cordially than he did with The President's lament over the depressed and unfortunate condition of all connected with the landed interest; and he trusted that the branch of the Legislature of which Mr.

Beadel was one of the ablest Members might yet be able to devise some means of restoring to these interests some measure of their past prosperity.

Mr. Wheeler, Q.C. (Associate), was pleased to have the opportunity of seconding the vote of thanks to Mr. Beadel, whom he was rejoiced to see filling the position of President for another term of office. He spoke as one greatly interested in this Institute, because there was one nearly allied to himself whom he hoped one day to see occupying an honourable place in the Institution.

Among several very interesting topics touched upon in the Address, there was one in which he felt a somewhat special interest—he referred to the Manchester Ship Canal; and he might mention as a curious fact that he had in his possession one of the old "chap songs," sung fifty years ago in Manchester, in which the construction of the canal was actually prophesied.

He foresaw, in the development of our great towns, an immense field for the exercise of the skill and knowledge of the surveyor of the future.

The vote of thanks having been carried by acclamation,

The President expressed his very cordial acknowledgments and his sense of the high honour attaching to the occupation of the Presidential Chair.

The duties of the office, although at times arduous, were always lightened by the perfect accord with which the Council worked together in the endeavour to secure the best interests of the Members and promote the prosperity of the Institution. He trusted that the result of their joint labours in the coming year might be to knit the Members of the Institution still more closely together in the bonds of kindly feeling and in a spirit of generous emulation towards the promotion of the common good.

Paper 148.
No. 250.

ALLOTMENT LEGISLATION.

By ROBERT RICH (Fellow).

Read at the Ordinary General Meeting of The Surveyors' Institution, *Monday, December 5th*, 1887.

WILLIAM JAMES BEADEL, M.P. (PRESIDENT), IN THE CHAIR.

As implied by its title, this Paper is restricted to an abstract of legislation directly relating to Allotments, with especial reference to the Act which received the Royal Assent so recently as September last. Within the time and space allowed to me, it would be impossible to add any account of the actual practice of letting and cultivating allotments, or of results and deductions therefrom—facts and conclusions which would be, moreover, outside the field of the given subject.

At the outset, it will be well to make an attempt to define an allotment. The Act above alluded to lays down an acre as the extreme limit of such a plot of land; but it should be noted that the Government declined to consider a close of three acres of grass within the term, not because such an area was beyond the scope of the expression, but mainly because they believed it would be impossible to purchase, by compulsion, sufficient pasture to satisfy the demands which the measure promised to concede. It may be remarked, too, that Lord Tollemache, who has taken a greater practical interest in peasant-farming than, perhaps, any other man, always includes a cow-plot of three acres of pasture in the term "Allotment." Most of the usual expla-

nations of this expression omit either to state a limit of area or imply that an allotment must be cultivated by a labourer earning regular daily wages—interpretations too loose in some points and too tight in others, since they improperly exclude, for instance, the plot of land occupied by a village cobbler, blacksmith, invalid, irregular worker, or pensioner. I venture to submit the following definition:—An Allotment is an acre or less of arable, or not more than three acres of pasture land, tilled or tended by its tenant, as an important but dispensable aid to his main means of living. When enough land is let to one tenant to make its cultivation, without hired labour, the chief object of his own work, it is usually called a "Small Holding." It is necessary thus to distinguish an "Allotment" from a "Small Holding," for their respective meanings in a social and political sense are distinct, though there may be but little difference between them in law.

Before entering upon a summary of the more recent legislation, it will be well, and, indeed, almost necessary, briefly to notice the genesis of the allotment system, including some pertinent statistics. In the Tudor period, public opinion was seriously alarmed at the growing aggregation of land in the hands of a privileged few. Sheep-farming had then become so much more profitable than corn-growing, that much land was laid down to grass and inclosed, and thereby many labourers were thrown out of honest work. Parliament attempted to redress these economic evils by passing quaint and impracticable Statutes aiming at compulsorily providing small holdings. Two of these Acts may be mentioned here, but merely as historic curiosities, since their compulsory provisions were the outcome of a system which has long since passed away. By an Act (4 Henry VII., c. 19,) passed exactly 400 years ago, the consolidation of farms was forbidden throughout the kingdom, and one house was to be maintained

to every twenty acres. Lord Chancellor Bacon highly praised this Act more than a century afterwards. In 1589, the year after the defeat of the Armada, it was enacted that no cottage in a farming district should be built or maintained "without four acres of ground at the least be assigned to be continually occupied therewith." This Act was repealed in 1774.

In the time of the Commonwealth, as was natural, several suggestions were made that land should be assigned to the poor of the Republic. In 1652 one, Silvanus Taylor, in a book called "The Common Good," advocated the principle that, on the inclosure of land, an allotment should be set apart for cultivation by the poor as tenants of the parish, at a reasonable rent. No systematic adoption of these ideas seems to have resulted, but in many parishes vestries made grants to their poor of odd corners and waste strips of common land, confirming their awards by minutes entered in the churchwardens' books.

The real need for allotments appears to have arisen in the latter part of the last century, by which period much of the Common land, which had previously supported the rapidly-increasing population, had been, or was about to be, inclosed, as the private property of the larger landowners. An appeal for land to be allotted to labourers was heard on the successful termination of the American rebellion. This demand was, there is no doubt, partly due to the increasing impatience of the poorer population at the growing wealth of the landowning or governing class. The sentimental ideas of the wayward dreamer, Rousseau—which had exerted so unexpected an influence upon the blunt Puritans of New England, that they had adopted his very words in drawing up their "Declaration of Independence,"—had moved the minds of many of the toilers in the mother-country. "Land for the People" was muttered in low tones, and no one

listened. It was not until the seeds sown by Rousseau and the rest had borne such blood-red fruit in France, that the labourers of England clamoured loudly for land or bread. The landlords listened, and, under the patronage of the King, who was so proud of his title of "Farmer George," a society for "bettering the condition and improving the comforts of the poor" was formed in 1796. This association published reports from time to time until 1814, and, from these papers, it appears that one of their principal good works was the "allotment of land to the labouring population."

The earliest instances on record of the systematic setting-out and letting of allotments occurred in Gloucestershire, which Lord Onslow has, therefore, called the "Cradle of Allotments." In 1770, a lord of the manor, near Tewkesbury, divided 25 acres into plots and let them to the poor, to whom they proved to be a great benefit. About 1793, when many wool-carders were thrown out of work and into great distress, in the Tetbury district, a neighbouring landowner, partly at the suggestion of my great-grandfather, employed the poorest men in grubbing up a gorse covert, afterwards letting the land in allotments to the labourers who had cleared it. From that time forward, the letting of small plots to be tilled with the spade grew very slowly but steadily into a practice in several parts of the country. The practice, however, did not become common until after the culmination of the severe agricultural distress in 1830. Whilst popular feeling was beginning to run fiercely in favour of the Great Reform Bill, meetings were held in many parts of the country to suggest and discuss measures for the relief of the able-bodied poor. Several of the largest landowners and other influential men formed the "Labourers' Friend Society," their professed object being to obtain a small portion of land for the labourer at a moderate

rent. This association worked for several years, establishing branches in many parts of the country. Thenceforth the number of allotments throughout England rapidly increased, partly through facilities voluntarily afforded by private landowners, and partly by the effect of certain Acts conferring powers on public bodies.

Passing on to official returns showing the numbers of allotments, it should be noted that no trustworthy enumeration was made before 1873. In that year, a special list of the number of "garden allotments detached from the houses of agricultural labourers and artisans" was included in the annual Agricultural Returns. The summary shows that there were 246,398 such allotments in Great Britain, of which 242,542 were in England, 1,726 in Wales, and 2,130 in Scotland. The total extent of such allotments was 59,631 acres, equal to an average of almost exactly one-quarter of an acre for each plot. In that year the agricultural labourers, farm-servants, and cottagers were estimated at 765,000. After 1873 no official enumeration appeared until February 1887, when a specially-compiled Return was issued. The fifteen thousand and odd bare statistics for England and Wales show that, in 1886, of allotments detached from cottages, there were 131,207 having an area of under one-eighth of an acre each, 116,355 of one-eighth and under one-quarter of an acre, and 103,915 of one-quarter, but less than one acre. Taking next the allotments of from one to four acres, both inclusive, there were 18,239 of arable, 11,792 of pasture, and 5,005 partly of arable and partly of pasture land. Of all the above-mentioned 386,513 plots, 316,288 were within an average distance of not more than half a mile from the cottages of their occupiers. The total number of allotments attached to cottages, and exceeding one-eighth of an acre, amounted to 256,805, and their average rent, including house, is given as £4 3*s.* each.

The agricultural labourers in England and Wales were estimated to number 800,000 last year. The same Return shows that the whole of Scotland possessed only 5,450 allotments detached from, and 14,598 attached to, cottages. In 1885, Lord Onslow, to whom I am indebted for assistance in the preparation of this Paper, submitted a series of questions to the larger landowners, inviting an assurance from each that he had taken or would take steps to meet fully the demand for allotments on his estate and in his neighbourhood. The landowners addressed were, severally, proprietors of at least three thousand acres. Of these, 248 landlords, owning 2,441,000 acres—about a fourteenth of the cultivated area of England and Wales,—gave the assurance desired, together with interesting particulars as to their own practice in letting allotments.

Turning from these wearying but pertinent statistics to a sketch, from a layman's point of view, of legislation directly relating to allotments, it may be mentioned that the only trustworthy treatise entirely devoted to this subject is Mr. Hall's very able "Law of Allotments." I desire especially to express my sincere thanks to Mr. Hall for generously permitting me to make many extracts, relating to earlier legislation, from his book.

Since 1805 several Acts have been passed expressly providing for the extension of allotments by public authorities, but Parliament refused to sanction the principle of compelling private persons to sell land for cultivation by the poor until some two years ago. Indeed, before 1882, no Act existed even to facilitate the letting of allotments by individual owners. Taking these latter first, only two of those passed before 1887 need be noticed here. Under Section 41 of the Agricultural Holdings (England) Act, 1883, a landlord may give his farm-tenant notice to quit a part of his holding, for the purpose of providing gardens for

cottages or for allotment for labourers of land for gardens or other purposes; whereas, formerly, a notice to quit a part only of a holding could not be given.

By the Housing of the Working Classes Act, 1885, the Local Sanitary Authority is empowered to purchase land compulsorily for cottages for the labouring classes, with gardens of not more than half an acre, provided that the estimated annual value of such garden shall not exceed £3.

Beginning almost with this century, many Acts have been passed intended to supplement the voluntary action of private landowners, by rendering land in the hands of public bodies, or lying waste or uninclosed, available for cultivation in small portions by the poor. Some of these Acts are permissive, others are compulsory. The famous Act of 1601 (43 Eliz., c. 2), for the relief of the poor, must not be forgotten, however. This measure was the first to establish the principle that the public, represented in this case by the parish authorities, should set the poor to work—a principle which lies at the root of much of the modern legislation relating to allotments.

The first instance on record of land being expressly set apart for allotments under a Local Inclosure Act occurred in 1806, when, by the Great Somerford, Wiltshire, Inclosure Act, out of 970 acres inclosed, from 5 to 8 acres were allotted to the labouring poor. This example was quickly followed in many other parishes. Under a noteworthy Act, called the Poor Law Amendment Act, 1819, the churchwardens and overseers, with the consent of the vestry, were empowered to take in hand parish land, or to purchase or hire other land, not exceeding 20 acres, and either to set the poor to work on it, as a parish farm, or to let a portion to any poor and industrious inhabitant of the parish, to be by him occupied and cultivated on his own account. Though this Act was adopted in many parishes, particularly in the

south-western counties, the experiments made under it were, in most cases, abandoned. In 1831, the amount of land which might be hired under the Act of 1819 was extended to 50 acres, and power was given to the churchwardens and overseers to inclose waste or common, and not exceeding 50 acres, with the consent of the Lord of the Manor, and of the majority of the Commoners, for the same purposes.

In 1832, an important Act was passed, which was, within its limits, compulsory. Its object was to convert unproductive Fuel allotments, and other land appropriated for the general benefit of the poor of any parish, into gardens for industrious cottagers, while an augmented supply of fuel would be purchased out of the rents. The Act requires the trustees and parish officers to let allotments, of not less than a quarter nor more than one acre, at the average rent of other land in the parish, to such industrious day labourers and journeymen legally settled in the parish as should apply for the same. The erection of habitations on the land is prohibited, and notice to quit can only be given if the rent is four weeks in arrear, or for bad cultivation, so that fixity of tenure is secured to a good tenant. Though the Act is compulsory, it could only be enforced by mandamus, which is, of course, too costly a process for poor cottagers. This was, doubtless, the reason why it was never widely adopted.

The Poor-Law Commissioners reported, in 1834, that "the immediate advantages of allotments are so great that, "if there were no other mode of supplying them, we think it "might be worth while, as a temporary measure and as a "means of smoothing the road to improvement, to propose "some general plan for providing them." In 1835, it was enacted that the powers given by the Acts of 1819-31-32 to the parochial authorities should for the future be exercised by the Guardians. The practical effect of this measure was to stop the further application of the earlier Acts. The

administration of the Acts by the Poor-Law officials had always caused them to be regarded with suspicion by the labourers. The Act of 1835 added the disadvantage of management from a distance by men not in sympathy with the letting of allotments, whilst handing over the land of a Parish for the benefit of the Union. In 1843, a Select Committee of the House of Commons reported strongly in favour of Allotments. They concluded :—"That the tenancy of land "under the garden-allotment system is a powerful means of "bettering the condition of those classes who depend for liveli- "hood upon their manual labour, whether in manufacturing "or agricultural employment; and it has this peculiar merit, "that its benefits are not obtained at the expense of any other "class, nor accompanied by any corresponding disadvantage." They reported also that the system "supplied sound industrial "training for the children under their parent's eye," and that it had been instrumental in reforming bad characters, and keeping men off the rates. The Committee made many recommendations, some of which were carried into effect by subsequent Acts of Parliament.

Under the General Inclosure Act, 1845, the Inclosure Commissioners, on the inclosure of any waste or common land, were empowered to require, as a condition of inclosure, the appropriation of a sufficient allotment for the labouring poor. The allotment is to be vested in the churchwardens and overseers, but is to be managed by Allotment Wardens, consisting of the incumbent and one churchwarden and two ratepayers of the parish. This Act has been much amended by subsequent Acts.

In 1867 a Commission appointed to inquire into the employment of children, young persons, and women in agriculture, reported "that the best method by which the pecu- "niary condition of the agricultural labourer, where low, "can be improved, and to which the Legislature could give

"a salutary stimulus by simple and unobjectionable means," was "a more general adoption of the practice of attaching "such an amount of land to the labourer's cottage, or, in "default of that, in assigning to him such an amount of land, "as near his dwelling as possible, as will profitably employ "the leisure hours of himself and his family without turning "him into a small farmer, or leading him to place his chief "dependence on the produce of his land and not on wages."

Though the Poor-Rate Assessment and Collection Act, 1869, does not especially refer to allotments, some of its provisions are of great importance to the landlords and tenants of small plots of land. Under Section 3, in the case of a hereditament in the country with a rateable value of not more than £8, the owner may agree with the overseers to pay the poor-rates, whether the property is occupied or not; and the overseers, subject to the control of the Vestry, may allow such owner a return of 25 per cent. on the rates. Under Section 4, a vestry may order the owner of a small hereditament to be rated, and thereupon they shall allow him an abatement of 15 per cent. And such owner may require the overseers to allow a further abatement of 15 per cent., by offering to be rated for not less than a year, and whether the property is occupied or not. But this section applies only to a property which includes a dwelling-house. It is not, therefore, applicable to an allotment apart from a cottage. It would be a great and just advantage to both tenant and owner, and, indirectly, a benefit to the vestry, if the overseers were compelled to allow this abatement of 25 or 30 per cent. to the public or private landlord, on his undertaking to pay the poor-rate, whether the allotment be occupied or not. A case showing the hardship which this inequality in rating sometimes brings on labourers and landlords has just occurred, as many have occurred before. A landowner, finding that certain overseers, jealous of his

letting allotments to labourers in their employ, refused to allow him the benefit which they might allow him under the above Section 3, and, being unable to afford to pay the full rates, has felt himself reluctantly compelled to give all his allotment-tenants twelve months' notice to quit. So greatly did I regret the absence of a section in the recent Allotments Act for rating an allotment without a dwelling-house upon it, on the same scale as one with a cottage upon it, that, after the passing of the Act, I wrote to an influential member of the late Ministry, complaining of the omission. That Member of Parliament, who has taken as great an interest in allotment legislation as any other man, wrote to me thus:—"Your re-" marks about the incidence of rating are very important. It " seems to me that a very simple Act would put the matter " right. Could you draw me up a Clause which might be " embodied in a short Bill, and which would, in your opinion, " be a remedy for the difficulty you name?"—thus implying that, like most other people, he had previously been unaware of this anomaly in rating. As bearing upon another and somewhat parallel question relating to the rating of allotments, the following extract from the proceedings of the House of Commons may be worth quoting. On March 10th, 1887, the President of the Local Government Board, in reply to a private member, said:—"The question whether an allot-" ment-garden without any building is liable to be assessed " to a general district rate under the Public Health Act, " 1875, on one-fourth of its rateable value, depends on " whether the allotment is arable land or a market-garden, " within the meaning of that Act. This is a question of " law, and does also, to some extent at least, depend on the " circumstances of the particular case. I believe that in " fact, in several districts, allotment-gardens are assessed on " the reduced value."

The Poor Allotments Management Act, 1873, provides

for the appointment of Committees to manage allotments, made for any public purpose under any local Inclosure Acts where the number of trustees or vestrymen empowered to manage them exceeds twenty. It also contains important amendments of the Act of 1832 and the earlier Acts. The Commons Act, 1876, proved that public opinion had come at last to veto the inclosure of Commons, unless such inclosure would be for the benefit of the poor and the neighbourhood generally, as well as for the advantage of the persons who had private interests. It gives a better security than the Act of 1845 that the land allotted for the poor and public purposes shall be sufficient and suitable. It may be noted here that about two thousand local Inclosure Acts were passed before 1801, and some two thousand more between 1801 and 1845. The total amount of land allotted for field-gardens under the Inclosure Acts, from 1845 to 1876, was only 2,113 acres out of a total of 370,848 acres, out of which such allotments could be required. From 1876 to 1885, under 21 orders for inclosure, 298 acres have been required to be set apart for field-gardens out of 24,321 acres inclosed. The Commons Expenses Act, 1878, provides that the appropriation of an allotment for the labouring poor may be required on the "regulation" of a common as on an inclosure.

The main object of the important Allotments Act, 1882, is the compulsory conversion of lands belonging to parish dole charities into allotment-gardens for the neighbouring poor. It extends the provisions of the Act of 1832, which was, as already mentioned, also a compulsory measure. The Act directs that all trustees who hold lands for the benefit of the poor of any parish or place in or adjoining that in which such lands are situate, and whereof the rents or produce are distributed in gifts of money, doles, fuel, clothing, bread, or other articles of sustenance or necessity, shall,

where such lands are not otherwise used for the benefit of the parish in which it is situate, as a recreation-ground or otherwise for the enjoyment or general benefit of the inhabitants, give public notice and take proceedings as mentioned in the Act for letting such land in allotments to cottagers, labourers, and others. This is the main provision. The other sections deal mostly with the scope and limits of the enactment and supply machinery for working it. The trustees have no option in the choice of tenants; the Act is strict against undue preference, and no requirement as to character can be made. Any cottager or labourer qualified under the Act has a right to claim an allotment. No allotment may exceed one acre in area, and the tenant is subject to any necessary rules made by the trustees. Notwithstanding many difficulties encountered in interpreting and carrying out the Act, it has been adopted, mostly with good effect, in a large number of parishes.

The influential and broadly representative Royal Commission on the Housing of the Working Classes, 1885, reported very strongly in favour of labourers having allotments, whether "plots of arable or of pasture land, of potato or of garden ground." The Commission laid great stress on the value of allotments to labourers and their families in every way, and indirectly to their landlords and their neighbours generally.

In August last the Allotments and Cottage Gardens Compensation for Crops Act, 1887, was passed. It does not apply to Scotland, Ireland, or the Metropolis, and it comes into force on the first of January next. The measure is intended to supplement the Agricultural Holdings Act, 1883, which, it will be remembered, does not apply to tenancies of small plots of land for a shorter period than one whole year. The recent Act entitles the tenant of a cottage-garden, or of an allotment of not more than two acres, to obtain from his

landlord, "upon the determination of the tenancy after the commencement of this Act," and "notwithstanding any agreement to the contrary," compensation for the following :— "(A) Crops, including fruit, growing upon the holding in the "ordinary course of cultivation and for fruit-trees and fruit- "bushes growing thereon, which have been planted by the "tenant with the previous consent in writing of the landlord. "(B) Labour expended upon, and for manure applied to, the "holding since the taking of the last crop therefrom in "anticipation of a future crop. (C) Drains, and for any out- "buildings, pigsties, fowl-houses, or other structural improve- "ments made by the tenant upon his holding with the written "consent of his landlord." The landlord may deduct from the compensation payable to the tenant any sum due for rent or for breach of contract. It is, of course, necessary that the procedure for obtaining compensation should be carried out as cheaply and simply as possible. The Act, therefore, provides that, in the event of the landlord and tenant not agreeing, and ultimately failing to jointly appoint an arbitrator, both or either of them may require the local magistrates to appoint an arbitrator, who will be asked to act without remuneration, and who will, in any case, be paid only a "moderate sum." The arbitrator's "award shall be final and conclusive in every case." The last section provides that, if compensation be claimed under the Act, it cannot also be claimed under the Agricultural Holdings Act, and that, where the provisions of the two conflict, the more recent Act shall prevail.

Having alluded to every Act of any importance passed previously to the end of August 1887, and affecting the allotment system generally, there remains but one more measure for review—the Allotments Act, which received the Royal Assent on the 16th of September of this year. Though the last, it is, perhaps, the most important of all by reason, more especially, of its indirect effects.

Occupying a modest place in the Queen's Speech, at the opening of Parliament on the 27th January, was the following paragraph:—"You will be asked to consider measures "having for their object . . . . . to facilitate the provi- "sion of Allotments for small householders." Though I have searched diligently through the *Times* from the beginning of the year, I have not succeeded in finding a single allusion to the proposed Bill throughout the countless columns devoted to the aggravating debates on the Address. Indeed, nothing more was heard of the measure until the 18th July, when the President of the Local Government Board brought it into the House of Commons. In the course of his introductory speech, he very properly explained that Allotments are not intended to supplant, but to supplement, other labour, and he added that if, as the measure proposed, "Allotments were placed within the reach of the labourers "on the outskirts of towns, as well as of the agricultural "labourers, he believed the benefits would be enormous." On the 11th August, the Bill was read a second time without a division. After being subjected to many hours of more or less irrelevant criticism, it was appreciably altered in Committee of the House of Commons, and, passing at once without amendment through a House of thirteen peers, it finally became law on September the 16th.

The Act (50 & 51 Vict., ch. 48) has no preamble, and its first section says that it may be cited as the "Allotments Act, 1887," the original prefix "Labourers'" having been wisely abandoned by the Government. Of the eighteen sections of which the Act consists, the second and third are the most important. The first paragraph of the former runs thus:—"On a representation in writing to the Sanitary "Authority of any urban or rural district by any six regis- "tered parliamentary electors or ratepayers resident, in the "case of an urban district, in that district, and in the case

"of a rural district, in some parish in that district, that the "circumstances of the urban district or parish are such that "it is the duty of the Sanitary Authority to take proceedings "under this Act therein, the Sanitary Authority shall take "such representation into consideration." The Sanitary Authority means, of course, the Town Council in towns, and the Guardians in rural districts. Much debate took place as to the Local Authority which should be charged with the administration of the measure. The suggestion that Quarter Sessions should carry out the Act was not acceptable, since the present county authority is not a popularly-elected body, and the parish vestry is obviously too small for such jurisdiction, and it is peculiarly open to petty intrigue. It was a remarkable feature of the debates that nearly every speaker who alluded to this "Authority"—from the Prime Minister downwards—asserted or implied that the Guardians were prejudiced against labourers' allotments, or that they were otherwise unfit for the functions entrusted to them by the Act. Speaking in June on the Earl of Dunraven's Allotments Bill, in the House of Lords, the Marquess of Salisbury said:—"If Quarter Sessions were taken as the Authority, "they might deal with it only in a perfunctory spirit, and no "real result would follow. But if the powers were given to a "local sanitary body, such as the Board of Guardians, the "matter could hardly be carried out without some danger to "the peace of the locality." Though a Gloucestershire Member's statement, that the "Guardians are diametrically "opposed to the aspirations of the agricultural poor," may be exaggerated if it refer to the counties generally, there is often too much truth in the assertion. The Guardians will, of course, act as the "Sanitary Authority," and not as representing the Poor-Law, but it is to be feared that few labourers will appreciate this nominal distinction. The poorer villagers will without doubt resent the administration

of their allotments by the body which they have dreaded throughout their lives.

Section 2 next requires the Sanitary Authority to ascertain whether there is really a demand for allotments. If they find that labourers cannot obtain such at a "reasonable rent" by voluntary arrangement, then they "shall by purchase or "hire acquire any suitable land, which may be available, "whether within or without their district or parish, adequate "to provide a sufficient number of allotments." The possibly varied interpretations of the expression "reasonable rent" will, doubtless, lead to much wrangling between labourers and sanitary authorities, as to whether allotments already voluntarily let to such labourers by private landowners are let at rents which would, or would not, oblige the authorities to become landlords themselves, in their corporate capacity. The remainder of Section 2 provides that a sanitary authority shall not acquire land for allotments, save at such price or rent that, in their opinion, all expenses incurred in acquiring the land and otherwise in relation to the allotments may reasonably be expected to be recouped out of the rents obtained in respect thereof. This paragraph is of vital importance, for, practically, it means that a landowner who objected to compulsorily selling land for allotments, might, by indirectly raising "all expenses incurred in acquiring the land" above what could "reasonably be expected to be recouped out of the rents," in turn compel the Authority to abandon a proposed purchase. An unwilling owner may compel the Authority to invoke the costly assistance of the Local Government Board and Parliament; and as the Lands Clauses Act is also to apply, the Members of the Institution who know what "compulsory sale" and "severance" imply, will readily recognise that land so acquired could not be made to recoup its cost out of its rent as agricultural land. At the same time, it is of the utmost impor-

tance that nothing in the Act should re-establish anything approaching the demoralising principle of subsidising rent out of out-door relief. If allotments are to be a success, they must certainly be self-supporting.

In Section 3, Sub-section 2 permits the Sanitary Authority to petition the "County Authority," and this latter body may then make a provisional order authorising the former to take land by compulsion. As to the cost of such an order, the Attorney-General asserted that, if unopposed, it averaged £25. The "County Authority" is defined as "any representative body elected by the inhabitants of the "county which may be established under any Act of any "future Session of Parliament," but, until such body is established, the Local Government Board is to take its place. The latter Board will, on the application of any County Authority, introduce a Bill in Parliament confirming provisional orders. In case of disputed compensation, a single arbitrator may be appointed by the parties, or, on application by either party, by the Local Government Board, which shall fix his remuneration. The arbitrator is empowered to determine the amount of costs, and to disallow unnecessary costs. The County Authority may not make a provisional order for purchasing "any park, garden, pleasure-ground, or "other land required for the amenity or convenience of any "dwelling-house," or any railway or canal land, and they are also directed to "avoid taking an undue quantity of land "from any one owner." The Sanitary Authority may hire land for allotments on lease for a term not exceeding thirty-five years. Section 5 authorises the Sanitary Authority to adapt the required land for letting in allotments, by draining, fencing, and dividing, acquiring approaches, making roads, and otherwise. Section 6 empowers the same authority to make regulations for letting the allotments, and for preventing any undue preference, and they may also appoint

allotment-managers, who may or may not be members of such authority, but who must all be resident ratepayers.

The 7th section prescribes that the Sanitary Authority shall be deemed to be the occupiers of the allotments for the purposes of all rates, taxes, and tithe rent-charge. They are, however, to apportion their payments under these heads among the allotment-tenants, each of whom must pay his share of such outgoings as an added rent. But it is expressly provided that, for parliamentary and other franchises, the tenants shall be deemed to be the ratepayers. It also directs that one person shall not hold any allotment exceeding one acre, and that an allotment shall not be sublet. If, however, an allotment cannot be let in accordance with the Act, it may be let on sufferance to any person whatever at the best annual rent obtainable. No building other than a tool-house, shed, green-house, fowl-house, or pig-stye may be erected, but a tenant may remove an allowed building at the end of his tenancy, since neither the Authority nor the incoming tenant need take any such building, nor pay any compensation therefor. If his rent is in arrear for forty days, or if a tenant of three months' standing does not observe the regulations, or if he lives more than a mile out of the district or parish, the authority may determine the tenancy by a written notice at the end of one month. Section 9, the longest in the Act, is devoted to the mode of electing allotment-managers. Not less than one-sixth of the parliamentary electors in a parish in any rural district may require the sanitary authority to order an election of managers, to take the place of those appointed by that authority. The managers will number not less than three nor more than five; they will be elected by ballot, and will retire triennially. The 10th section permits the sanitary authority to borrow for the purposes of acquiring, improving, and adapting land, and for all other expenses under the Act, in accordance with

certain provisions of the Public Health Act, 1875. One extraordinary effect of the Act will be that it may indirectly compel a monopolist landowner to furnish funds for buying himself out. If the sanitary authority should be of opinion that any land acquired under the Act is no longer needed for allotments, or that more suitable land is available, they may, with the sanction of the County Authority, sell or let such land, or exchange the same.

The 12th section is important. Where it appears to a Sanitary Authority that land can be acquired for affording desired Common Pasture, at such price or rent as may reasonably be expected to be recouped out of charges for turning out animals, such authority may submit to the County Authority a scheme for providing such pasture. It is significant that an amendment in favour of three-acre cow-plots was defeated by only twenty-three votes in a House of 193. Apart from the difficulty of obtaining sufficient pasture land for allotments in certain districts, there would be the excessive cost of fencing and watering these small plots. If a field of eighteen acres, for instance, were divided inte six three-acre cow-closes, nearly a mile of fencing might be necessary. Even with the Common Pastures, there will be trouble in making provision for a supply of hay, though the Government stated that the allotment-managers might set apart a portion of the pasture land for mowing. Section 13 empowers the allotment-wardens, under the Inclosure Act, 1845, and amending Acts, and all trustees within the meaning of the Allotments Extension Act, 1882, to transfer the management of their allotment-lands to the Sanitary Authorities within their districts. The next section permits two or more adjoining parishes to combine for the purposes of the Act. Section 15 directs the Sanitary Authority to keep a register of the tenancy, acreage, and rent of every allotment, and to deposit, for free public

inspection, at the end of every March, an annual statement showing their receipts, expenditure, and liabilities under the Act. Sections 16 and 17 contain merely definitions already summarised, and 18—the last—confines the application of the Act to England and Wales.

In submitting this brief abstract of the Act to the attention of the most representative Society of land-agents in the kingdom, I venture to remark that I am chiefly anxious to elicit the opinions of Members of this Institution upon the measure before them. I will refrain, therefore, from taking up the time of the Meeting by attempting any detailed criticism of my own. Indeed, it is with the utmost diffidence that I presume to offer the following brief comments on the Act in the presence of the experienced authorities on land and law whom I have the honour of addressing.

The Allotments Act gives to the labourer as a right that which was previously but a privilege. It is probable that the compulsory provisions will be but rarely applied in the purely rural districts. The Act may, possibly, prove to be a powerful instrument in the hands of the workers around the outskirts of the great cities and in the smaller towns. Though its action may be small, its issue may be great. The compulsory principle that every labourer has a right to land being now laid down by law, the people, who have the power, may possibly expand that principle and precedent till it pierce the ring-fence protecting every great estate throughout the realm. It should not be forgotten that the real author of the Allotments Act has already given notice of a Bill next Session, compulsorily to provide much larger allotments. The labourer's vote is now so necessary to power, that political parties will feel sorely tempted to outbid each other for it. Those advocating the compulsory acquisition of allotments have argued that, as it is right to take land

for railways, it is right to take it for allotments. But I would submit that the cases are not precisely similar. To take land for the good of a majority might not justify its being taken for the good of a minority. Because it is fair to compel a landowner to sell land for a railway to be used by the many, it does not necessarily follow that it is fair to force him to sell it for the provision of what may be considered as capital for the few. The price of farm-labour is already very low, and it may be lower yet; allotments to supplement the food of himself and family should therefore be more highly prized by the labourer. And, even for the somewhat selfish sake of keeping the labourer ready to the farmer's hand, an allotment should indirectly be of value to the landlord and his many-acred tenant. Whether the possession of land will induce the increased number of producers to turn "Protectionist," and so follow a remarkable result of land-holding in nearly every other country, can be told only at some future time.

I trust that those who have been so good as to honour me with their attention will admit that I have kept aloof from any political prejudice in the treatment of my subject. In the endeavour to remain absolutely impartial to the end, I will venture to conclude by quoting, out of very many reviews I have lately received or read, five opinions on the Act from five authorities who have all taken a more or less active interest in allotments, and who represent respectively the Landowner, the Land-Agent, and the Land-labourer, the advocate of voluntary allotment and the advocate of compulsory allotment.

Lord Tollemache, of Helmingham, who owns nearly twenty-nine thousand acres of the richest land in Cheshire and seven thousand acres more in Suffolk—a noble man, who has devoted a very long life to the personal care of vast estates, and to the best interests of his tenants, from the

highest to the lowest,—has sent me the following notes, amongst much other interesting matter :—"Fifty years ago, "when I commenced introducing the allotment system on this "(Cheshire) estate, I had to consider that those allotments "should be of a size that would greatly benefit the labourer "and not raise any opposition on the part of the farmer. I "found that this could be accomplished by granting in this "dairy country three-acre allotments, comprising one rood "for growing vegetables, &c., one acre for mowing, and an "acre and three-quarters for grazing. The wife, with the "assistance of the children, attends to the cow, pigs, &c., "makes butter for the market, and supplies buttermilk for "the family.

"In Suffolk, an arable county, the labourers are supplied "with half-acre allotments attached like a garden to their "cottages, in the cultivation of which their wives and children "take a part. Some of the cottagers in Suffolk, with the "advantage of their half-acre allotments and the purchase of "meal, sell seven or eight fat pigs annually.

"The farmers have been for years satisfied with the allot-"ment system thus carried out; indeed, I believe they one "and all approve of it, supplying them, as it does, with good "labourers. The Government deserve great credit for their "Allotment Bill—no doubt soon to become an Act of Parlia-"ment, and the precursor of another Bill adapted especially "for agricultural districts. The compulsory powers which I "have always advocated, accompanied by certain conditions, "will, it is to be hoped, ensure the allotment system being "before very long properly carried out, not by simply offering "to a limited number of favoured labourers, but to every "respectable labourer on landed estates, an allotment of three "acres in dairy districts, conveniently situated, and not less "than half an acre in arable districts, attached like a garden "to the cottage. If this were generally adopted throughout

" the country, what an advantage and comfort it would prove " to labourers and their families; how much it would check " the migration of agricultural labourers to towns, thereby " securing to farmers a regular and ample supply of labour, " and tending to preserve the just rights of landed " proprietors."

Having visited several of Lord TOLLEMACHE's three-acre allotments, and the cottages of their peasant-occupiers, I would bear witness to their great advantage to everybody interested in them. It may be worth while to remark that Lord TOLLEMACHE is a staunch Conservative, so far as his political opinions are concerned.

Turning now to the opinions of the typical land-agent, they may be gathered from a remarkable speech made by THE PRESIDENT of The Surveyors' Institution, on the 19th of August last, in Committee on the Bill. The Member for Chelmsford is reported to have said that " allotments could " only be acquired voluntarily or compulsorily. If agriculture " was to remain in the position which it occupied at the " present moment, the compulsory powers of the Bill could " never be put in force. Anyone owning land would only " be too delighted in the circumstances to grant allotments, " so that the labourers might obtain the experience gained " by the landowners at present—that the land was absolutely " worthless for them to occupy. He thought the Government " had done all they could in selecting the authority to put " the compulsory powers of the Bill into operation. He " should rejoice to see allotments general throughout the " country, but his experience had been, gained privately and " professionally, that, in rural districts, allotments were not " appreciated in the slightest degree." As a humble Member of The Surveyors' Institution, I deem it my duty to myself to add that, after an exceptionally-varied and sufficient experience of allotments, I have not arrived at

the same conclusion as THE PRESIDENT of this Society as to the value of land, and as to the labourers' appreciation of allotments.

The land-labourer is next on the list of five already alluded to. Mr. JOSEPH ARCH, President of the Agricultural Labourers' Union, who has been a most intelligent, skilled, and thrifty labourer, writing on October 9th, says, at the end of a long and interesting letter on allotment letting and cultivation :—"As to the late Allotments Bill, no sensible "labourer will ever bow to such a miserable, complicated, "unworkable Act. It's like CHAPLIN'S—it isn't worth the "paper it's printed on."

The Earl of ONSLOW, the Honorary Secretary and energetic founder of the "Land and Glebe Owners' Association for the Voluntary Extension of the Allotments System," said, in the course of a speech on the second reading of the Bill in the House of Lords :—"The Bill would do most good "in the neighbourhood of towns, near which artisans often "experienced the greatest difficulty in obtaining land, how-"ever good might be the terms that were offered. The "labourers themselves could have the management, and it "was right that in the hands of the elected of the parish "should be placed the management of the allotments. In "the Bill there was nothing to prevent a man from keeping "a cow. The right of common pasture would exist, and in "winter the labourer would be able to feed his cow on the "produce of his acre allotment. The measure was likely to "effect substantial good."

It will now be fair to conclude with some notes from the advocate of "compulsory allotment." Mr. JESSE COLLINGS, M.P., the real author of the Allotments Act, as well as of the historic "Three acres and a cow," and late Secretary of the Local Government Board, to which the administration in chief of the Act is to be entrusted, writing on October 10th,

says:—"I am glad you are going to deal with the Allotments "Act, which is a very valuable measure, though it does not "contain all we should like it to do. The Bill which I "laid before Parliament for some years, and on which the Act "just passed is more or less based, put the limit at one acre "of arable and three acres of pasture. In the Government "measure the 'one acre of arable' is retained, but the "'three acres of pasture' is left out. On the other hand, "there is a most valuable provision in the Government Bill which "was not in mine, namely, that permitting Common Pasture, "and this, being in addition to the one acre, is a great improve-"ment. The great defect is the administrative body being "the Sanitary Authority in rural districts. This defect, "however, must be common to any Bill until we have reform "in County Government, which we are promised next year. "The Management Committee is to be elective, on the 'one "man, one vote' method, and this is a very important feature. "The clause permitting the trustees of charity lands to let "their lands to the Sanitary Authority for the purpose of "allotments, is a most valuable provision. My Allotments "Act of 1882 has been largely operative, but there has been "a difficulty with respect to trustees, who feared, or professed "to fear, that if they let the land in allotments, the charities "would be likely to suffer in respect of income. This fear is "perfectly groundless, but it caused much friction in the "working of the Act. This difficulty is now removed, as the "trustees can let or sell land in bulk to the local authorities, "who will be responsible for rent, &c. I have given notice to "introduce my Small Holdings Bill next Session, and I hope "that, after due discussion and consideration, it will have the "same good fortune and become law."

Thus do men's minds differ as to the meaning of this seemingly simple measure, which has been set up as a

landmark for the people, in a time of direst trial and tribulation for all who till or tend our English ground.

On leaving the Allotments Act, at last, I would hope that, with all its rights or wrongs, it may lead the nation a little nearer to that which is the aim and end of all good government—"the greatest happiness of the greatest number."

Paper 149.
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ALLOTMENTS & SMALL HOLDINGS.

By MARK JEANS (Fellow).

Read at the Ordinary General Meeting of The Surveyors' Institution, *Monday, December 5th*, 1887.

WILLIAM JAMES BEADEL, M.P., PRESIDENT, IN THE CHAIR.

There can be but one opinion as to the great advantage of "Allotments," properly so called, to the agricultural labourer and others of the working classes in the neighbourhood of towns, who have spare time from their regular work to devote to the proper cultivation of such plots of land. As the word "Allotment" conveys a somewhat vague meaning, I will quote a good definition of it from a recently-published work by Mr. Hall Hall, entitled the "Law of Allotments," and which is full of valuable information. The word is there defined as "a small piece of land let to a "person to be cultivated by him as an aid to his sustenance, "but not in substitution for his labour for wages; where "the land is large enough to become the main object of the "tenant's labour, it is in the phrase of the day called a "'Small Holding' rather than an 'Allotment.' It is im-"portant to distinguish between the two things, as their "political and social import differ widely, though in point "of law there is not much difference." I will refer shortly to the history of these Holdings, and inquire as to the extent and manner in which they have existed, and the laws which have been passed relating to them.

Owing to the adoption of Free Trade and to other causes, the whole agricultural outlook has changed in recent years, and it will, therefore, be necessary to examine the question from its present standpoint.

The principle of providing and setting apart allotment and other lands for the poor has been largely in practice for a very long period, and we shall find it so much mixed up with the inclosure of common lands, that it will be convenient to draw attention here to the fact that about the latter part of the last and the beginning of the present century there prevailed all over the country a great desire to inclose the many valuable tracts of waste land which were more or less subject to common rights, and in which the poor were interested. It was necessary to obtain Acts of Parliament for the purpose, and these were of course promoted by owners of land possessing common and manorial rights, and who were desirous of apportioning the commons amongst themselves. Of course, in this arrangement the lord of the manor was most interested, as not only did he receive the full apportionment in respect of his freehold properties, but also for his manorial rights—rights which, possessing little or no intrinsic value, were exchanged for something more tangible; and the tenant-cottager, who probably enjoyed many privileges and advantages in connection with the common lands, but whose individual claims, from the very circumstances of the case, were weak and easily set aside, received little or no compensation under the award. In some instances a small provision was made, as at Ogbourne St. George and Ogbourne St. Andrew, Wilts, which occur to my mind. The award of Ogbourne St. George, dated 1797, under which an area of 1,624 acres of land is inclosed, apportions the freehold of rather less than 20 acres of the poorest land to the lord of the manor, to be held "for raising furze and other fuel for the use of "all and every the poor inhabitants of the said parish for ever,

"according to the tenor and directions of the said Act." That of Ogbourne St. Andrew, dated 1780, incloses 1,291 acres, and, after allotting 236 acres to the lords of the manor in respect of their manorial rights, apportions 5 acres for the raising of furze or other fuel for the poor, and which is now known as "the Poor's Furze."

Although the poor were thus set aside, Mr. Hall tells us that "the principle that on the inclosure of land an "allotment should be made for cultivation by the poor, as "tenants at a moderate rent to the parish, was advocated so "long ago as 1652 by Silvanus Taylor, in a book called "'The Common Good,' referred to in Toulmin Smith's "'Parish Law,' p. 432. It seems it was at one time no un-"common thing for the vestry to make grants of small plots "of land (usually of waste strips, not of wide commons) by a "minute entered in the parish minute-book." The earliest instance (Mr. Hall adds), or one of the earliest instances, of the embodiment of this principle of Silvanus Taylor in an Inclosure Act was in 1806, when another Wiltshire parish—Great Somerford—by an Inclosure Act (46 Geo. III., c. 73) out of 970 acres inclosed, allotted from 5 to 8 acres for the labouring poor "as a sort of compensation for the loss "of the open common, although they had no legal rights "of common." This was done at the instance of the rector of the parish, who had observed the success of *private owners'* allotments elsewhere.

The example of Great Somerford was quickly followed in other places, and this system of providing allotments was found most useful and beneficial. In 1845 an Act, entitled "An Act to facilitate the Inclosure and Improvement of Commons and Lands held in common," &c., was passed to get rid of the expense of local Acts and the imperfections of procedure under them. As the expense of inclosure would be thus much reduced, it was thought it might well be

required that the owners should not make use of the Act without paying for it in some other way, and accordingly it for the first time applied generally the conditions which had before become usual in local Inclosure Acts, and empowered the Inclosure Commissioners, on the inclosure under that Act of any waste land of a manor, or of land subject to unlimited rights of common, to require, as a condition of inclosure, the appropriation of such an allotment for the labouring poor as the Commissioners should think necessary. It also gave power to the Commissioners to require the appropriation of an allotment for the purposes of recreation and exercise for the inhabitants of the neighbourhood not exceeding 10 acres in a parish with 1,000 inhabitants, and a quantity in proportion for parishes with lesser populations. Provision was also made for converting a portion of land to be dealt with into common or "regulated pasture"; but this was to be done at the request of persons whose interests exceeded one-half of the whole interest in such land.

The allotments awarded for the labouring poor were, under Section 31, to be "subject to a corn rent-charge to be "payable thereout to any person or persons who may be en- "titled to allotments under such inclosure"; Section 78 providing that such rent-charge should be allotted to any person or persons who may elect to receive the same in full or in part of the allotments to which they may be entitled. The said rent-charge was to be reckoned in a manner similar to the tithe rent-charge under the Act of 1836, and to be subject to the same septennial average. These were to be under the management of allotment-wardens (the incumbent of the parish and the churchwardens or other appointed rate-payers), and to be let to the poor in gardens not exceeding a quarter of an acre in extent, at rents (free of tithe or tithe rent-charge, rates, taxes, and assessments whatsoever) to be fixed by valuation, and to be of the full value for "farming

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purposes," and such allotments to be revalued once at least in every ten years thereafter. The residue of all rents payable in respect of the allotments, after paying rent-charge, rates, taxes, tithes, and expenses incurred by the allotment-wardens, was to go in aid of the poor-rates of the parish, and to be applicable in the same manner for the relief of the poor.

The legislature thus, at this period, showed its growing interest in the subject, and supplemented the increasing facilities provided by private landowners. The Act of 1845 was followed by ten other Acts amending and extending it, and passed respectively in 1846, 1847, 1848, 1849, 1851, 1852, 1854, 1857, 1859, and 1868. In addition to these, other Statutes were passed relating to allotments. One passed in 1831 gave power to parish officers to inclose any waste or common land not exceeding 50 acres, to let in parts to poor and industrious inhabitants of the parish, and following in the same year was another to inclose lands up to a like extent belonging to the Crown. In 1832 an Act was passed to enable trustees under inclosure awards to let the lands awarded for fuel—to which I have previously referred—for garden-allotments, "in portions of not less than one-fourth of a statute-acre, and not exceeding one such acre," as a yearly occupation from Michaelmas to Michaelmas, "to such "industrious cottagers of good character being day labourers "or journeymen legally settled in the said parish, and "dwelling within or near its bounds, as shall apply for the "same."

Then came the Commons Act of 1876, which marks another epoch in the history of Inclosure Acts, and appears to be the result of a general feeling that the time had come to curtail the existing facilities for inclosure. When the General Inclosure Act of 1801 was passed, inclosure was regarded as an unmixed good; it increased the supply of food, improved the property of owners, and afforded em-

ployment, both present and prospective, to the labouring classes; but, as the wastes grew less, the evil became apparent of shutting out the poor from the practical advantages they enjoyed on the open commons, even though they had no legal rights. The evil was recognised, as I have said, to a certain extent in the Act of 1845. By 1876 the time had come when public opinion forbade the inclosure of a common unless it could be shown it was for the benefit of the whole neighbourhood as well as those having private interests, and in that event more suitable provision was made for the wants of the labouring poor and the public; it, in fact, practically put an end to inclosure, unless in exceptional cases, there having been only twenty-one orders for inclosure under the Act up to the end of 1885, from which 298 acres were set apart for field-gardens out of 24,321 acres inclosed, the whole extent set apart under Inclosure Acts from 1845 to 1885 being 2,426 acres. There were about 4,000 local Inclosure Acts before 1845, but it has been found impossible to estimate, without examination of each Act and without local inquiry, the extent allotted for field-gardens or allotments by them.

In 1882 an Act was passed, called the Allotment Extension Act, which required trustees in whom lands are vested, or by whom the same are held for the benefit of the poor of any parish or place in or adjoining to that in which the lands are situate, to set apart suitable fields for allotments of not more than an acre each, or, in default of such land being conveniently situate for the cottagers intended to be benefited, to let it, and hire other more conveniently situated.

The Allotments Act passed last Session introduces the compulsory principle. Briefly summarised, it empowers the sanitary authority of any town or district, on being per-

suaded that a demand exists for allotments which cannot be obtained on reasonable terms, to apply to the County Authority for permission to acquire the same by compulsory purchase, if necessary; but it authorises the local authority, in the first instance, to acquire such lands by voluntary hire or purchase, and to divide and administer them by means of allotment-managers, either appointed by the sanitary authority or duly elected by the ratepayers. Elaborate provision is made for rendering the allotments so acquired self-supporting, and borrowing powers are given to the authority for acquiring, improving, and adapting. No person may rent more than one acre, nor erect any buildings, so that "Allotments" pure and simple, and not "Small Holdings," can be thus obtained. Under the 12th section, however, power is given to the authority to acquire lands for "Common Pasture," which, I think, may eventually prove one of its most valuable provisions; for much land now practically worthless may thus be turned to most useful account, and greatly benefit the labouring and industrious classes. As to the Act generally, eventually it may be useful, but in view of the present deplorable state of agriculture, and the anxiety of landlords to let their lands at any price, for any purpose, I cannot but think it will be for a long time practically inoperative.

It remains to be shown how landowners have recognised their responsibility in making voluntary provision, and to what extent that is now done. Until recently, there existed no trustworthy statistics on the subject which could guide Parliament in its deliberations, and both it and the public generally were grossly misled as to the facts. Mr. Gladstone, above all others, stated, from his place in Parliament, only last year that the agricultural labourer was practically divorced from the soil, and that there was a crying need for

immediate legislative interference to reinstate him. How far this is from the actual truth is shown by the Earl of Onslow, Hon. Sec. to the Land and Glebe Owners' Association for the voluntary extension of the allotment system, in a small book published by Longmans, Green, & Co., and entitled "Landowners and Allotments." In his preface thereto he says:—"The result arrived at, from a careful consideration "of the facts here placed before the reader, is, that on every "well-managed estate, allotments exist, at rents only higher "than adjoining farm-land by reason of the outgoings having "to be borne by the landowner, or because, if devoted to "other than agricultural purposes, they would command a "high rent. It is also made evident that landowners, far "from desiring to alienate the labourer from the soil, have for "many years past, and are still from day to day, endeavouring "to increase the interest which he has in the cultivation of the "land upon which he lives."

This is no empty assertion, but is amply borne out by the statistics which he quotes in a handy tabulated form, and derived by careful inquiry from his brother-landowners, no less than 248 of whom, owning in the aggregate upwards of 2,441,620 acres of land, having stated to him that large provision at moderate rents has been made for allotments, and that they are prepared to meet a further demand (if it should arise) from those residing on their estates. The total area of land under cultivation in England and Wales is 32,544,000 acres, so that over one-fourteenth is owned by those whose estates are referred to, none of whom owns less than 3,000 acres; the name of each owner is given, and the statement can be verified by reference to them. This is merely the result of a private inquiry by one individual, and in no way represents the extent to which the system prevails. Since the publication of that book a Government

return has been obtained by the Inland Revenue Department, and published by the Agricultural Department of the Privy Council in a much more extensive and complete form, from which one learns that, out of a population of 766,712 agricultural labourers, farm-servants, and cottagers in England alone, 80,045 have potato-ground from farmers, 4,135 have a general run for a cow, and 3,279 have a definite quantity of land—in extent 5,671a. 2r. 9p., this being also from farmers.

The number of allotments or field-gardens (except railway allotments) detached from cottages is as follows, in England alone:—Under 20 poles, 128,566; of 20 poles and under 40 poles, 116,487; of 40 poles and under 1 acre, 103,819; of 1 to 4 acres arable, 18,066; pasture, 9,874; part arable and part pasture, 4,237—making together a total of no less than 381,049 allotments of this description, 339,382 of which are held on yearly tenancies, and the remainder differently; 311,301 of these are within half a mile of the cottages. In addition there are 35,499 allotments, ranging from 20 poles to 4 acres, granted by railway companies to servants in their employment. We have thus, exclusive of the gardens which are attached to dwelling-houses, allotments approaching half a million under four acres in extent. Attached to cottages the returns show 230,316 gardens of more than 20 poles in extent. The average rent, including cottage, is £4 14*s.* 7*d.*, but 2,783 are returned as rent-free. Added to the foregoing are 5,492 granted by railway companies, with cottages, to their servants. There were, therefore, last summer, in England alone, nearly three-quarters of a million gardens and allotments, as I have described. Under classified headings we have larger holdings numbering 414,950; making, together with the others, a grand total of 1,100,000 holdings. Even

now we do not take into account gardens under 20 poles attached to dwelling-houses, and we must remember that 10 poles is a fair-sized kitchen-garden for a small family, and quite as much as many labouring men care to cultivate. The total population of England is not quite 25,000,000 : 10,000,000 are accounted for in twenty-eight towns of not less than 80,000 inhabitants each, for very few (if any) of whom is it possible to provide allotments within half a mile of their dwellings, owing to the great value of the land for other purposes. We are thus left with a population of 15,000,000, to be divided by five, being the generally-accepted average number of a family—which leaves 3,000,000.

It is certain that a very large proportion of these must be so situated in the numerous large towns which come *under* the scale of 80,000 inhabitants, as to be half a mile away from any land which could be made available for allotments. Knowing that there are only about three-fourths of a million returned as farm-labourers and connected with land, we may fairly assume that, if we divide 3,000,000 by half, and say that there are one million and a half families which may be usefully benefited by having a certain quantity of land to cultivate, we arrive somewhere at a basis for the provision that is to be made. But I have shown that there already exist about 1,100,000 separate holdings over 10 poles in extent, and we have thus, at any rate, provided for 350,000 families more than those whose business is the cultivation of the soil. What, then, becomes of the arguments of those gentlemen who tell us that the mass of the rural population is divorced from the land? We know very well that many whose lives at the present time are wedded to the soil would be only too glad to get a bill of divorcement if some other mode of eking out an existence was provided them. Since the statistics I have

quoted were published, landowners all over the country have come forward and expressed their willingness to do everything in their power to extend the allotment system if there is the demand, and it will be greatly to their advantage to do so; there is no need of pressure except in rare and isolated cases. But I may be told this only applies to "allotments," and not to "small holdings" by means of which we are to create a peasant proprietary and so forth, and bring back the agricultural prosperity of the country.

One of the most prominent exponents of this theory has now pronounced a very emphatic condemnation of it. No stronger evidence can be adduced than that given by Mr. Joseph Chamberlain, who, in the course of a speech at the Exchange Hall, Hawick, on January 22nd last, showed the utter futility of doing anything in this direction at the present time. Referring to the unhappy state of Ireland, he said:—

"With these poor people it is not a question of rent, it "is not a question of reduction of rent, or any rent at all. ". . . . . These people could not pay 50 per cent. "of their rent, leave alone the arrears. They could not pay "the fraction which was being asked of them. They had "not paid rent some for three years, some for five years, some "for six, aye, and for seven years, and yet they are starving. "*The land which they cultivate is not sufficient,* even if they "pay no rent at all, to give them a bare subsistence. And "they do not stand alone, because there are many others in the "same position. I find from returns there are 60,000 holdings "in Ireland, all under five acres, near on 150,000 holdings "of between five and fifteen acres, and nearly three-fourths "of the holdings in Ireland are under thirty acres. What "follows? These people are not farmers; the majority of them "are more in the nature of labourers with allotments. They

" are people who have to depend for their subsistence upon " their labour, and who eke out their existence from what " they can get by their allotments. That is a desirable " position in good times when there is plenty of employment. " When Irish labourers came to England and found good " wages, and when they were able to gather the kelp at a " large profit, these allotments put them in a position in " which many an English labourer would have been glad to " find himself. *But now they are labourers without labour,* " *and they have to live upon their allotments, and the allotments* " *are not sufficient for the purpose.*" What more crushing condemnation can we have of small holdings in the present times than this absolutely correct evidence from Mr. CHAMBERLAIN ! Equally applicable to the small holders in England, as it is in Ireland.

It is a fact which cannot be disputed that very evil times have fallen upon the cultivator of the soil within these Islands, and those who are feeling it most acutely are the class to which Mr. CHAMBERLAIN refers. Undoubtedly, then, the present is not the time for extending the system. The cultivation of land must first be made again a profitable employment, and then is the time to see what can be done in this direction. In the course of my remarks I have referred to some instances—and many may be quoted—where small holdings have been an inestimable boon to the labouring classes, and have greatly increased the happiness and prosperity of those who have had the advantage of such occupations, whilst largely decreasing the poor-rates. I have in my mind some parishes on the outskirts of the New Forest where valuable common rights exist, and where former encroachments have created many little holdings, converted now into orchards, paddocks, gardens, and little farms with comfortable homesteads and cottages, giving a

degree of independence and comfort to their owners, many of whom have been some of the best class of farm-labourers finding employment within easy distance of their dwellings. These afford now ample evidence that the times are against any extension of the system at present. Mortgages have increased, and such holdings are being rapidly absorbed by adjoining larger estates, and their owners are infinitely worse off than those who depend entirely on the wages they earn.

To sum up my remarks, I have endeavoured to trace the history of allotments and small holdings, to show what legislation has done and attempted in the past, and what individual and voluntary benevolence, and the law of supply and demand, has done and is doing, and how far each has been successful. I contend there is generally little or no demand for more allotments, and that, although those who recommend small holdings may be actuated by motives of philanthropy and policy, the adoption of their views under free trade will only bring, as in Ireland, misery and disaster to the unfortunate people who may be tempted to embark in such undertakings.

Mr. J. Shaw (Fellow) begged to propose a vote of thanks to Mr. Rich for his admirable Paper on "Allotment Legislation," and to Mr. Jeans for his equally excellent Paper on "Allotments and Small Holdings," both of which, in his opinion, dealt very clearly and, at the same time, very concisely with all the points which arose in connection with the subject.

The question of Allotments and Small Holdings was one in which he had taken considerable interest for many years; for, in the course of a long professional life, he had had a great deal to do with the setting-out of lands for garden

purposes, common pastures, and cow-gates, and, had time permitted, he could have given numerous instances in point.

In his own district garden-allotments, common pastures, and small holdings prevailed, he was happy to say, to a very large extent. He happened to represent many estates, and found that, out of something like 700 tenants on one property, one-half paid less that £20 a year, and a very considerable number (something like 170) less than £10 a year, besides numerous garden and cottage tenants; the small-holdings system might, therefore, be said to be in full force in his own district.

He could give numerous instances corroborative of Mr. Jeans' quotation from Lord Onslow's book, showing that allotments were very general throughout the country, at any rate in the districts with which he had experience.

He had, as a rule, found that the allotments system had been productive of very much good, although there were cases in which it had failed. The great principle to observe was to give to working men only as much land as they could cultivate during their leisure hours. The allotments he was familiar with represented about 20 perches, or 600 yards each. These he had found to be of very great benefit, and if a man could raise the money to buy a cow, if it was possible to give him pasture sufficient to keep it upon, the boon to his family would be very great. He knew many cases in which this had proved the means of starting a man, and he could cite several in which persons who were now substantial farmers had started as labouring men with small allotments. Of course everything depended on the locality. In some districts one thing was wanted, and in other districts another; and although he was much in favour of small allotments, he held it absurd to suppose that a man could live on his little bit of land of four or five acres.

Some Members present would recollect the scheme proposed 40 years ago by Feargus O'Connor, when he attempted to show that a man could live and maintain his wife and family on 4 acres of land. Feargus O'Connor's book was in the Library of the Institution, and was worth referring to by anyone interested in the question. No man in his senses now looked upon any scheme of the kind as otherwise than impracticable.

He did not think that the demand for allotments was at all active in country districts at the present time. Although industrious working men who had allotments valued them, he could give instances within the last two years where he attempted to allot land for gardens at agricultural rents, and offered every inducement to working men to take them, but without success; though in the neighbourhood of large towns there was, undoubtedly, a very great desire for them, for purposes of recreative employment. He had, on his own little property, something like a hundred tenants of garden-allotments, close to the town of Derby, paying good rents.

The Act of 1887 had, he thought, been most clearly explained in the Papers. It was a most important measure, and one which had been very well received in the country. At the same time, he did not anticipate the advantageous results that some expected from it, nor did he think it necessary at all in purely agricultural districts. In the neighbourhood of large towns, where land is valuable, there was the difficulty of purchasing in such situations so as to comply with the second section of the Act, which required, as stated in Mr. Rich's Paper, that "a sanitary authority shall not acquire land for allotments, save at such price or rent that, in their opinion, all expenses incurred in acquiring the land and otherwise in relation to the allotments may reasonably be expected to be recouped out of the rents obtained in respect

thereof;" that is, if the land is to be let at a reasonable rent as also directed by the Act. Possibly some arrangement might be made for hiring land for which the Act provided.

The machinery of the Act seemed to him as good as any that could be adopted at the present moment. On the whole, he looked upon it as a wise and desirable measure, and he hoped it would be the means of doing good, particularly to that interest in which so many of them were so deeply concerned.

He felt sure that, whatever might be the individual views of surveyors with reference to the Act, they would do their best, when called upon in any way, to carry out its provisions loyally and with a view to the advantage of those for whose benefit it was intended.

Mr. G. J. Brown (Fellow) had great pleasure in seconding the vote of thanks to Mr. Rich and Mr. Jeans for their excellent Papers. The subject did not need commending to the attention of land-agents, for he was satisfied that anything that tended to the benefit of those who lived on the land, on which surveyors spent so much of their time and thought, would cordially commend itself.

Mr. D. Watney (Fellow) would have liked to make a few remarks on the present occasion, because the subject was one in which he was greatly interested. It had been put forward on the one side that allotments were not needed, and on the other that the Act for providing them was one of the greatest possible boons to the country at large. He thought, therefore, it was a subject that should be thoroughly threshed out; but at that late hour he would be best studying the interest of the Members by moving the adjournment of the discussion, and, if allowed to do so,

would say a few words on the subject at the next Meeting.

The vote of thanks to Mr. Rich and Mr. Jeans having been put and carried unanimously, Mr. Watney's motion was then agreed to, the further discussion of the Papers being adjourned till the 19th instant.

AT

THE ORDINARY GENERAL MEETING,

Held on Monday, December 19th, 1887.

WILLIAM JAMES BEADEL, M.P. (PRESIDENT), IN THE CHAIR.

The adjourned discussion on the Paper on "Allotment Legislation," by ROBERT RICH (Fellow), and on the Paper on "Allotments and Small Holdings," by MARK JEANS (Fellow), read at the Meeting of December 5th, was resumed by

Mr. DANIEL WATNEY (Fellow), who said that Mr. RICH seemed to anticipate a very eager desire on the part of labourers and artisans to obtain allotments, while Mr. JEANS, on the other hand, observed (p. 57) that "the present is not "the time for extending the system," and (on p. 58) that "there is generally little or no demand for more allotments," and "that the want is already amply supplied." Now, here were two opposing views, each calling for consideration, for the question, at the present time, was one of a very important and comprehensive kind, and the way in which it was treated by the Institution would, no doubt, be to some extent the key-note to action throughout the country.

He must take some exception at once to the spirit of Mr. RICH's Paper. It was true that he claimed to have divested his observations of all political bias, but a close examination of the Paper disclosed a certain tone of satisfaction at the way in which the wedge had been driven, and an anticipation on his part that it would be driven still further in the future.

He entirely disputed Mr. Rich's assertion (p. 39) that "the Allotments Act gives to the labourer as a right that "which was previously but a privilege." The labourer had always had the right to hire and purchase what he could. He would have to pay rent on what he hired, and therefore, in his judgment, he had virtually no more right now than he had before. He agreed with Mr. Jesse Collings that "the Act recognises at last that which has so long been "fought for—the principle of the compulsory acquisition of "land *for the use* of labourers." Then Mr. Rich went on to say that "the Act may, possibly, prove to be a powerful "instrument in the hands of the workers around the outskirts "of the great cities and in the smaller towns." He (Mr. Watney) contended, on the contrary, that the price of land in the outskirts of the largest cities and towns was such as to entirely preclude any such extension of the principle. Did not the Act stipulate that the sanitary authority was to be satisfied, first of all, of the necessity for acquiring land either on lease or by purchase, and then that the interest on the cost of the land and the expenses of management would be such that the rent paid would recoup it? What, he would ask, was the prospect of obtaining land in the outskirts of large towns at a price that would be reasonable for the purpose?

He must also take exception to Mr. Jeans' view that there was no longer any necessity or demand for allotments, and that in the present state of agriculture it was absurd to think of providing them. He (Mr. Watney) believed, on the contrary, that this Act would do a great deal of good in this direction, and that it established several points which wanted determining. It established the point that an acre of land was the maximum that an agricultural labourer or an artisan could obtain for an allotment. Then it gave trustees what no previous Act that he knew of had given them,

the power to let for a period of 31 years, or to sell outright for those particular purposes.

He took exception to the arrangement which constituted the board of guardians in rural districts the authority for dealing with allotments. It was not, however, a point of any great moment, being probably a merely interim arrangement pending the passing of the County Government Bill to be introduced in the next Session of Parliament. The guardians in a rural district were the principal farmers in that district, and he did not think it desirable that it should rest with them to determine the questions relating to the allotments that their own labourers were to have.

He would give the result (because facts were better than theories) of some allotments that he had managed for a good many years past. These were at Horsham, situated between the town and the railway-station, and which might, therefore, be assumed to be within the reach of every man in Horsham. The total acreage of these allotments was 9 acres 19 perches, and they were divided into plots of 20 perches each, but there was no objection to a tenant having 10 perches, or two or more plots. These 9 acres 19 perches were diminished by one acre exactly, absorbed by the roads and footpaths dividing the different plots, representing a waste of 11 or 12 per cent., and leaving an available area of 8 acres 20 perches for purposes of cultivation. These 8 acres odd were let to 58 tenants at the rate of £4 per acre. Therefore the 58 tenants represented a rental of £32 10*s.* a year. These allotments were constantly changing hands. There were only 7 out of the 58 tenants who occupied a quarter of an acre. Some occupied 10 perches, but the average on the 58 was between 22 and 23 perches. He was sorry to say that, of these, 25 per cent. were in the county court last spring. They did not pay their rents, and they were so much in arrear that he had to take proceed-

ings against them. These men were yearly tenants from Michaelmas to Michaelmas, and the rents were paid in advance at Lady-Day.

To illustrate how impracticable it would be to turn this land into permanent allotment-gardens, he believed that the present value of it was £250 an acre, which at 4 per cent. would mean £10 an acre rental. As he had pointed out, one acre was waste, taken up in roads, representing another £10. Add rates, taxes, and tithes, another £1, bringing up the total to £12 an acre as the value of those allotment-gardens. They were let at £4, because they had not yet arrived at the value to sell which it was worth while to wait for; but if they were taken by an authority under the Act the rent would be £12 per acre. He put this forward to show how impracticable it would be, on the outskirts of towns, to take such land for permanent allotment-gardens.

He did not agree with Mr. Jeans that there was no demand for allotments. He could tell him that there was, at the present moment, a great deal of demand for them in rural districts; but the question was how long that demand would continue. This Act was like a new toy, and Mr. Joseph Arch, who, unfortunately, went about the country and aroused the cupidity of ignorant men by declaring that the land ought to be for the people, so excited their imagination that, to his own knowledge, labourers were now applying in large numbers for allotments which it was impossible for them to obtain.

He did not himself believe that the demand would continue, but that it existed at the present time he had no doubt whatever. The applicants, moreover, were exceedingly keen and sensible in selecting their allotments, for they took care to select the very best pieces. He had a case in Warwickshire in which they had selected one of the best pieces of pasture land in the parish. He refused to let them have it, and offered them in lieu of it an adjoining piece of arable, pre-

sumably quite as good land, and it remained to be seen whether they would accept his offer or whether they would succeed in obtaining the land they wanted, or the other piece he had offered them nearer the village.

He was afraid the Act would be a disappointment to many, and that, when they came to put it in practice, it would be found to be unworkable, because almost every cottage in the country had a garden to it, and, as he had shown by statistics, his experience went to prove that 20 perches of land to supply the family with vegetables was as much as any working-man could profitably cultivate. If he cultivated more than 20 perches he would have more produce than he wanted himself, and if all his fellow-labourers had allotments he would not be able to sell his surplus.

Then came another matter which was a very material one in the case of allotments—the manuring; and in his opinion no labourer could calculate on manuring properly more than 20 perches of land. These were the considerations which struck him in connection with the question. He did not, however, advance them in any spirit of antagonism, and he believed that land-agents would cordially support the movement, and that if they found a demand for allotments they would endeavour to supply it.

He agreed with another remark of Mr. Jesse Collings, "one great effect which the passing of the Act will have is "the impetus it will give to the provision of allotments "generally. I have always contended that compulsory pro-"visions, if passed, would not generally have to be used, "because the knowledge that such provisions existed would "lead to land being supplied voluntarily."

Mr. T. Hall Hall (Visitor) said he had been asked to attend the Meeting as the author of a book that had been referred to in the Papers read on the last occasion. Although

he had paid a good deal of attention to the subject, his researches lay rather amongst the book-learning on the question than in the practical management of allotments, though he frequently availed himself of opportunities of visiting allotment-gardens and conversing with the landlords and tenants, and was himself born and bred in a country district where allotments and cottage-gardens were abundant.

A great deal had been said about legislation to promote the allotments system, but not so much was heard about legislation which had had the effect of hindering the allotments system; which seemed to him to be no less important.

In his very able and accurate Paper Mr. Rich had given an account of the Acts which had been passed for the promotion of the allotments system. Until lately they seemed to have fallen almost entirely out of public view; but, as a matter of fact, there was not one of those Acts (except, perhaps, an Act of 1831 relating to the inclosures of Crown lands by the parish) which was not working quietly and usefully in different parts of the country—especially the Inclosure Acts. It would be unnecessary for him to recapitulate those Acts, or to mention the chance instances of their working that had come to his knowledge. He preferred to call the attention of the Meeting to some Acts of Parliament which had been prejudicial to the allotments system. Not that Parliament had ever been hostile to the system, although grave doubts had been expressed in Parliament, as well as by people out of Parliament, whether the allotments system could be satisfactorily promoted by legislation. But Acts of Parliament had been passed about other matters which had affected the allotments system, though for the moment, while they were being passed, their operation in this respect may not have been present to the minds of the legislature, or may have been overruled by other considerations. Mr. Rich had called

attention to some very important enactments of this sort, viz., the Rating Acts—both as regard the Poor-Rates and the Rates under the Public Health Act. He would mention the latter point first. Mr. RICH had quoted a reply given in Parliament to a question whether allotment-gardens ought to be assessed by the sanitary authority for the purposes of the General District Rate at the full annual value, or whether they were entitled, like arable and pasture ground, market-gardens, and certain other sorts of land, to an abatement, so as to be rated only at a fourth of the rateable value. He (Mr. HALL HALL) had had occasion to look very carefully into this question, and he had great difficulty in arriving at a conclusion. The conclusion which he did arrive at was, that, according to the use made of them, some allotment-gardens were entitled to abatement and that others were not. In point of fact, in some districts allotments were rated at the full value, in others at one-fourth. This was an unsatisfactory state of things, and it seemed to him that the point ought to be settled by legislation. Although legislation, in the past, might have been heedless of the allotments system, that could no longer be the case.

Then there was a further point—on the question of the Sanitary Rates. In urban districts the owner may be rated instead of the occupier, at the option of the urban authority, where the rateable value of the premises does not exceed £10. The word "premises" was defined to include all land. When the owner is rated, the sanitary authority is bound to assess him on a reduced estimate, of not less than two-thirds nor more than four-fifths of the annual value; and if the owner is rated, whether the land be occupied or not, he is entitled to be assessed at only a half of what the rate would be if levied on the occupier. These reductions could only be made in urban sanitary districts. There were no corresponding provisions for rural districts, and he must say that to

him there seemed to be no reason whatever why that difference should be kept up, except that, in rural districts, the sanitary expenses were, in most cases, so small that one could not go on dividing them to infinity.

Then there was the more important question of Poor-Rates, to which Mr. Rich also alluded. Mr. Rich proposed to assimilate the rating of allotments to that of small house-property. It did not appear to him (Mr. Hall Hall) that the two cases were altogether similar. The object of rating the owners of small houses was that so many small houses were let on weekly tenancies, and this caused a great difficulty in collecting the rates; but allotments, as recent returns showed, in far the greater number of cases, were let at least by the year, and therefore the amounts to be collected, would not be so small, nor so difficult to calculate, nor so likely to be irrecoverable. He should himself not like at present to give an opinion entirely opposed to Mr. Rich's proposal, but he thought it was not desirable to extend the system of rating the owner entirely instead of the occupier, for this reason, that it seemed to him extremely important that the occupier should, so far as possible, feel the burden of the rates.

Now, as all knew, it was almost the universal practice in letting allotments—at least, his information led him to assume so—that the owner should pay the rates and taxes and charge the tenant a gross rent including them. That course was not followed in the Allotment Act of the present year, and he thought very wisely, because, although allotments might be made to pay their way, one could not help considering, in letting allotments, that it was not purely a business matter, but that it was done very largely for the welfare of the tenants, and now that they had a vote in national as well as in parish affairs, it seemed very important they should feel the incidence of taxation; that what they paid as rent should really be the net sum which the

landlord received for his own use, and that the taxes and rates which they paid should not be concealed under the name of rent. If rent, rates, and taxes were included in a lump sum, tenants were apt to think that landowners made too great a profit out of the land, and, failing to perceive the real incidence of the rates and taxes, were apt to be insensible to their rise and fall. If allotment-tenants were made to know exactly what they paid in rates and taxes, there would be a very large body of men in each locality who would have a very sharp eye indeed to public economy. It might be quixotic to say that rates and taxes should be collected individually from the men, in such small sums as they would be, and coming in at frequent intervals throughout the year. That course would probably be irksome to all parties. The Government Act of this year seemed to him to hit the point very well in prescribing that the sanitary authority should be rated, but that they should each year give an account to the tenants of the amount paid as rates and taxes, and should add a proportionate amount of that to the rent of each allotment. That system seemed equally well suited for private landowners. In fact, it had been adopted by Lord Onslow, who had done so much for the extension of the allotments system.

To turn to another point. The Agricultural Holdings Act seemed to be of very doubtful benefit to the allotments system, except as regards the provision it contains for the resumption of land for laying out allotments. The question of the application of the other provisions of that Act was discussed in both Houses of Parliament before the Act was passed, but it had always remained a doubtful point whether the Act applied to allotments at all, and, if so, to what allotments. "The Allotments and Cottage Gardens Com-" pensation for Crops Act," which was rather humorously called the "*short*" title of an Act, passed this year, pro-

vided for compensation for the certain things mentioned in that Act, but, except to that extent, the doubt he had alluded to remained open; so that it might be uncertain what length of notice to quit an allotment-tenant was entitled to, and uncertain how the law of distress applied to allotments. It seemed desirable that that doubt should be set at rest by legislation. That it was a serious doubt he thought anybody who looked at the Act would become conscious of, or if they looked at the Hansard Reports of the debates on the Bill, they would see that even the Lord Chancellor of the day gave discrepant opinions whether the Act applied or not; and when he did make up his mind, and gave his reasons, he seemed to have missed the most material point bearing on the question.

Reference was made in the Papers read at the last Meeting to the official statistics as to allotments published last winter, and there was a great disposition to look upon them as if they showed the full development of the allotment system, but there seemed grave reason to think that those statistics were lamentably incomplete.

Persons who had taken the trouble to check the figures relating to districts with which they were familiar had found them very deficient. He thought they were so in the unions which he knew best. Allotments and cottage-gardens which did not exist could not well be counted, but it was easy enough to omit a great number, and the complicated character of the returns asked for seemed to have mystified many of the overseers, and some of them would have made out the returns better if they had been paid for the work put upon them. But even these returns showed a total of 780,940 allotments of all sorts, including potato-grounds and cottage-gardens of 20 poles and upwards in England and Wales, and 7,414 cows' runs. The annual agricultural returns gave 136,425 as the number of holdings under five acres in England

and Wales. Adding these figures together gave a total of 924,779. A few of the larger allotments were probably counted over again among the agricultural holdings, but the duplicates could not anything like equal the number of omissions. In the face of these figures the cry that the poor were divorced from the soil was absurd, though there might be room for improvement.

A curious point in connection with these returns was that in six counties the number of allotments exceeds the number of agricultural labourers. This calls attention to the fact, already well known to those who have studied the allotment system, that it is not only the agricultural labourers, nor only the countrypeople who hold allotments. Everyone who had anything to do with the Government Bill made it a great point that it was intended to apply equally, if not more especially, for the benefit of townspeople. He was sorry to hear that Mr. Watney, with his great experience, considered the Act would not be able to be put in force in favour of townspeople. However, it appeared that the Town Councils of many places were able to provide allotments. There was the almost classic example of Nottingham, where, however, a difficulty had arisen of the sort indicated by Mr. Watney. But there were many other examples. He was at Gloucester this year, and found that the Town Council had recently taken to letting allotments, voluntarily, on land close to the houses of some of the tenants. It was done partly as an act of charity, but qualified people there seemed to think that the Town Council would get just as much rent out of the land as before, when a private person under-let the land in allotments at a rent considerably higher than what the Corporation now charged. Of course, when the land is immediately wanted for building, it would be a different question; but land near a town, with a merely prospective value for building, seemed to be just the land for allotments.

Very little was usually done to improve the soil, and if it was deteriorated it did not matter. Rotation of crops need not be strictly observed. Each plot could be worked up to the last moment, and when the builder came the allotment-tenant could shift, without much loss, to a plot further out.

He did not propose to say much about the Allotment Act of the present year. It seemed too late for political criticism, and too soon for any practical criticism of the working of the Act. He had received newspaper and other reports of what was going on, and had heard of applications being made under the Act in at least fifteen counties in England, and in some instances of a number of applications in the same county. In some instances, he understood the labourers were already in occupation of land under the Act; so that it seemed the Act was going to have some actual operation, though he was disposed to agree with Mr. Watney that they would not find a great many allotments permanently occupied under the Act, for the reason, that landlords, almost everywhere, seemed so perfectly ready to let allotments, though he understood there were a few places where they preferred they should be let by the Local Boards. When people talked of the country being domineered by avaricious landlords who would not do anything, and who were opposed to the labourers, it reminded him of the travellers' tales of the Unicorn and the Roc, which were always to be found just where the particular person happened not to have gone.

Some of the criticisms on the Act seemed very absurd. People appeared to take this Act and compare it with the allotment system in Utopia! He thought the proper way of looking at it was to compare it with the propositions other persons had put forward. Take the compulsory provisions of the Act. If they were carefully examined it would be seen that the procedure for compulsory purchase was the same as in any other compulsory purchase by local boards, with

a few alterations which were entirely in favour of making the procedure less complicated and cheaper. He submitted that it would be a ridiculous thing to establish a new system of compulsory purchase to be available only in the case of allotments, when a much more difficult and expensive system had still to be adopted for those other objects which had been longer recognised as the proper subjects for the exercise of compulsory powers. When a railway took a particular piece of land, or if it were wanted for a highway, it formed one piece in a chain, and the whole line might be useless if that piece was not obtained; but it was not so with allotments, where, if one did not get one piece, another might do almost as well. At the same time the compulsory clauses were quite inevitable in this Act, and whether they were workable or not it was too early to say. He hoped it would not be necessary to test them. The Act might achieve perfect success without even the voluntary clauses ever being put into operation, for, as Mr. Rich well observed, the Act was meant to supplement, and not to supplant, the voluntary system. Its true office was to spur on private landowners to grant allotments on reasonable terms, and, so far as one could judge, it was already having that effect.

It seemed to him it would be a very great evil if allotments let by public authorities took the place of those let voluntarily by landlords. Everyone knew of Lord Westbury's famous saying about corporations, that they had not a body to be kicked or a soul to be—he did not say saved! In dealing with a public body one always had to go by fixed rules, and without the human sympathy and the good-feeling that should exist between a landlord or his agent and allotment-tenants.

There was only one other point to which he wished to refer before he sat down, and that was the practical question of who was entitled to take allotments under this Act—a

point which was a good deal talked of in the Papers. There was nothing in the Act to confine its benefits to agricultural labourers. The Act said that allotments were to be let to "persons belonging to the labouring population." The precise meaning of that expression was nowhere defined in the Act. It seemed to him that the sanitary authority was purposely left with discretion where to draw the line. But, if a definition were wanted, one could be found of a practically identical expression in the Metropolitan Police Act of 1886. For the purpose of the purchase of land by the Police Receiver under the Lands Clauses Consolidation Acts, there was a restriction on purchase of houses occupied by "persons "belonging to the labouring classes." And Section 5, Subsection 7, enacts that :—

"For the purposes of this section the expression 'persons "belonging to the labouring classes' includes mechanics, "artisans, labourers, and others working for wages, hawkers, "costermongers, persons not working for wages but working "at some trade or handicraft without employing others, "except members of their own family, and persons other "than domestic servants whose income does not exceed an "average of thirty shillings a week, and the families of "any such persons who may be residing with them."

That definition might be thought too wide and comprehensive, but, if a similar description were embodied in any regulations made under the Allotments Act, he failed to see who could object to any such persons being received as tenants. He felt hardly able yet to criticise the Act independently, but he might say that he looked upon it as a useful and very honest attempt to do all the little that could be done by legislation to extend the allotments system. Its success could not be measured by the number of instances in which it would come into operation. It was a measure essentially supplementary, whose aim was to induce land-

lords to let allotments; but, as in the past, so in the future, one must look mainly to the voluntary system for the extension and maintenance of the allotments system.

Mr. T. Chatfeild Clarke (Fellow) was very glad to hear Mr. Watney express himself so cordially, and thought it a favourable augury of the spirit in which surveyors generally would approach a measure intended for the public benefit.

He would venture, with the permission of the Meeting, to read a few notes sent to him by Mr. Jesse Collings on the two Papers under discussion. Of course it was known to everyone in the room that no man in the country took so deep and ardent an interest in the question of Allotments as Mr. Jesse Collings, and his remarks could therefore hardly fail to interest such an audience as he saw before him. Mr. Jesse Collings wrote:—

"I return you herewith the copies of Papers sent. I have read them carefully through.

"With regard to Mr. Jeans, generally, there is not much to be said further than that his statements are mere assertions, and evidently come from a very limited experience.

"His quotation from Mr. Chamberlain, page 56 of your 'Transactions,' as to the condemnation of small holdings, is altogether outside the question, and not applicable in any way to the state of affairs in England. Mr. Chamberlain is referring simply to the small cottagers of Ireland, who obtain little or no employment from the farmers, and the bulk of whom used at one time to migrate to England and earn a considerable sum during harvest, out of which they paid their rent and lived for the greater portion of the year. This class constitutes really the difficulty in Ireland, but offers no parallel whatever to the agricultural labourers in England. The object of providing allotments in England is not to give a subsistence to the holder, but to furnish him with a piece of land, of a size varying according to his requirements, on which he can occupy

his spare time, and thereby get interest and profit, the former (interest and pleasure in the plot) being by no means the least part of its value. Upon this piece of land he can produce valuable additions to his table in the form of potatoes, vegetables, &c., and it is often worth to him from 2*s*. to 4*s*. per week; but it is never intended and never thought of that he should endeavour to live on it, as the small cottagers in the west of Ireland are attempting to do on their bits of land.

"Referring to mortgages (page 58), no doubt, in times gone by, when agriculture was flourishing, small holders were bought out, the offers often made to them being so tempting that they could not be withstood. These offers were made by landowners who wished to add to and complete their estates in every way. The political power, and, what is more important, the profit, have, however, departed to a great extent from landowning, and these offers are not now made. At the same time, the power of mortgage should be curtailed. In the Small Holdings Bill (a copy of which I send you herewith), of which I have given notice for next Session, provisions are made to meet this difficulty, and I should like you to study them and urge them. First, you will notice that the Bill provides that a small holder, as distinct from the allotment occupier, shall become *quasi*-owner of his land by paying a fourth of the purchase-money, leaving the remainder always unpaid, but subject to interest, or rent-charge, or ground-rent, to the Local Authority, in perpetuity. This secures several advantages. The first is that the holder cannot mortgage beyond the value of his fourth. Secondly, it allows him to put his capital into the cultivation of the land, instead of locking it up in the purchase. Thirdly, it secures to the Local Authority the right of preventing subletting, subdivision, &c., and also secures that the land shall be always occupied by the cultivating owner, while it leaves to the tenant the full right of sale and devise. He can sell it in the open market at the highest price he can get for it, or which his industry or enterprise have made it worth; but it is sold always subject to the fixed rent-charge or interest to which I have referred.

"There is a clause that if the land so sold by the Local Authority should become of great value from any cause not due to the skill, enterprise, or work of the occupant, such as

the discovery of a mine or quarry, or its being required for building, cemetery, railway station, &c., &c., then the Local Authority have the right to buy back the holding at its agricultural value, *plus* compensation for removal, &c. The object of this is to secure to the ratepayers,—that is, the community at large—the unearned increment of value of the land. This might be called the municipalisation of the land, which I have always advocated, and which I believe, if you well argue it, will command the judgment of many who have studied the question.

"As to the contention by Mr. JEANS that there is little or no demand for more allotments, that is a mere statement which I am in a position to contradict, and which almost everyone can contradict who has had experience in the matter.

"Mr. RICH's Paper is mainly historical, and seems to me to be interesting. On page 30 he refers to my Allotments Extension Act of 1882, and adds that the Act of 1832 was also a compulsory measure. Now, the difference between the two Acts is this. My Act is absolutely compulsory. It says to the trustees 'you shall' (and has no qualification except as to the land being suitable)—'you shall let the land in allotments on the demand of the labourers, provided the land is suitable for the purpose.' The Act of 1832, however, though in name compulsory, can only be enforced by mandamus—a process which poor cottagers cannot enter upon—and the Act has been mainly inoperative.

"Mr. RICH, on page 33, states that, from the mention of the measure in the Queen's Speech on January 27th, 1887, to the introduction of the Bill on July 18th, nothing was said about the measure. This is not correct, for in June Lord DUNRAVEN introduced his Allotment Bill—a private Bill—in the House of Lords, and the Government supported the principle of that measure and the second reading, but asked that it should be postponed, as they had a Bill which it was their intention to introduce at the earliest possible opportunity, but that it was useless in the then state of business in the House of Commons to introduce it at that moment.

"With respect to the Government Allotments Act of 1887, I think Mr. RICH's statement is a fair one. The great defect of the Act is, of course, as far as rural districts are concerned, the administrative body to which it is referred. With respect to the boroughs the body is quite satisfactory, it being the

Town Council, but in the rural districts the Sanitary Authority —that is, the Board of Guardians—though much better than the Quarter Sessions, is not a satisfactory body. But this must be a defect of any Bill introduced by any Government whatever, because there is no satisfactory Rural Authority in existence. This defect, however, will be cured as soon as reform in county government is brought about, and I hope that that reform will be effected in the coming Session. This promised County Government Bill might not be all we should like to see, but, if it does away with the present chaos, and gives a governing body based on the representative principle in which the people can have their fair share of influence, then the defect I have named will be remedied, and the working classes will be able to bring their influence to bear directly on the body which will have the administration of the Allotments Act.

"The Act is valuable because it admits the principle of the compulsory acquisition of land for allotments.

"It also gives power for the provision of common cow-pastures in addition to the one acre of arable. According to my Bill the allotments might be three acres of pasture or one acre of arable, and I should like this to have been in the Act, but in many districts I have no doubt it will be much easier and cheaper to obtain cow-pasture for a number of labourers than small three-acre lots, and if the labourer can get his acre of arable as well, it will do for the production of winter keep for a cow.

"Section 9 is specially valuable.

"My Allotments Act of 1882 has been very widely in operation, and I am glad to find it increasingly so. Under the late Government I could never get any help in the direction of coercing unwilling trustees, but during the past twelve months the Charity Commissioners have shown willingness, and even vigour, in compelling trustees to do their duty, and they have frequently sent inspectors into localities with that view. The trustees, however, fear, or profess to fear, that the income of the Charities will diminish if they let the lands in allotments. Section 9, to which I have referred, overcomes this difficulty by allowing the trustees to let the land in bulk to the Sanitary Authority for the purpose of allotments.

"Mr. Rich states that the action of the Act will be probably 'small, but the issue great.' Accounts are reaching me

daily that this is the case. I have always contended that, if once a compulsory Act were passed, the compulsory provisions would rarely have to be used, because land would be supplied voluntarily by those who knew that compulsory powers were behind. On a large estate which I was going over a few weeks ago the agent was then retaking possession of certain fields, in order that he might apportion them in allotments according to the demands or wants of the labourers. There is also, in many districts, a movement on the part of the labourers to induce the Sanitary Authority to act, and although, as a rule, the Guardians are not a body very favourably disposed to the demands of the labourers, yet in many districts they are more wise and liberal. Besides this, as you are aware, when a matter becomes law, it is likely to have an effect on the action of people who would otherwise be indifferent.

"The Act of 1887, though by no means a perfect measure, is yet a valuable one, and is a good step in the right direction. I might say further that, however defective it may be, we must admit that, if the late Government had been returned to power, we should have had no Allotments Bill at all. Everything would have been put off for the Irish policy; and that course, however we may agree or disagree on the advisability of that policy, would cause several Sessions of agitation, perhaps one or two general elections, and certainly the indefinite postponement of British legislation.

"I notice Mr. Arch's statement, quoted on page 43. He made a great blunder in opposing Chaplin's Bill, which contained the principle of compulsion, and he is using exaggerated language with regard to the present measure.

"If the Papers read before the Institution are printed and published, I should be glad to know from you where I can get a copy, as this is a subject which has been with me one of twenty to thirty years' interest and hard work, and I am pleased to read any contribution to its discussion.

"Jesse Collings."

It was his (Mr. Chatfeild Clarke's) intention to add but very few words to the interesting memorandum he had just read. Looked at as a social question—some might object to look at it from a social point of view,—would not the extension of the allotments system do the very thing so much

desired by all—viz., keep the agricultural labourer from rushing into the towns, by giving him additional comfort and convenience on the land?

He agreed with Mr. Shaw and Mr. Watney that allotments to labourers should be limited to such a size as they could cultivate in their spare time. He differed on this point from Mr. Jesse Collings, holding that three acres was too much, and, at the same time, too little. It was of no use to give a labourer three acres with the idea that he could use it for a livelihood. On the other hand, it was too much for his recreative hours. Mr. Jesse Collings had favoured him with a copy of his new Bill on small holdings. He had looked through it to see if it defined what a small holding was to be, and failed to discover any definition of the term. The Small Farms question was one which stood upon a totally different footing from the question under discussion, and the view of every practical man in that room would probably be that anything like an acre of allotment-garden for a poor man was more than he could properly cultivate in his leisure hours. On the other hand, he entirely favoured the idea of giving a labouring-man the common use of pasture, to enable him to keep a cow. He had lived long enough in the country to know the great benefit it was to the poor to be able to get fresh milk for their growing children. They had now great difficulty in obtaining it, and, in his opinion, a return to the common pasture system would be highly conducive to the health and contentment of the labouring poor.

He was extremely surprised to hear Mr. Jeans say that allotments were little valued by the people. His own experience might be more limited than that of Mr. Jeans, but it went to convince him that, in the south of England at any rate, they were much valued. He had some few acres of allotment-gardens on his small property in the Isle of Wight, and at Michaelmas last one of those allotments became

vacant, and, instead of no demand, there was an excess of applications for them—viz., four or five—and the rent received in respect of them was larger than the rent derived from any other portion of his property.

Mr. C. J. Mann (Fellow) asked the size of the allotments.

Mr. T. Chatfeild Clarke replied that they were 20, 40, and 60 perches each. He paid the rates and taxes himself, and was therefore unable to say, without reference to his books, what the rent actually represented, but he believed it to be somewhere about £4 an acre clear. He knew another case in his neighbourhood where a large part of the glebe was let off in allotments, with equally favourable results. He maintained, therefore, that to say allotments were not valued, and that there was no demand for them, was a complete mistake. He observed that his views in this respect were endorsed by Mr. Shaw, by Mr. Watney, and by Mr. Jesse Collings.

Now, the real questions to be decided were whether the principle of granting allotments was a sound one in itself, and whether its extension was advisable at the present time in order, as the author of one of the Papers had put it, to further "the happiness of the greatest number of people." His own view was that the recent Act was based on a sound principle, that its general adoption would assist the development of healthy morals, and make for the interests of society at large, and would, as he had already said, tend to retain the agricultural labourer on the land, and keep him from the towns, where he often sank into a condition of squalor and misery. The subject was one of such vast intrinsic importance that it was well worthy of full and exhaustive discussion, and it was of consequence to recognise the needful steps to extend the application of the principle.

Mr. S. B. L. Druce (Associate) was not disposed on the

present occasion to travel into the merits or demerits of small holdings, although he must protest, in passing, against the idea of small holdings (and by small holdings, he meant holdings of five acres and under) being at all uncommon in this country. It was often said, and was repeated over and over again in the newspapers, in speeches, and elsewhere, that England was a country of large farms, and that we had no small holdings, but the figures in the latest official returns (those of 1885) showed that the average size of agricultural holdings in this country is about 60 acres only, and that the number of holdings not exceeding five acres in size represent 30 per cent. of the whole. Those figures had been most clearly commented on and elucidated in the Paper which he held in his hand, recently read by Major Cragie before the Royal Statistical Society.

He was very glad to find that every speaker and every writer, except perhaps Mr. Jesse Collings, now clearly understood the difference between an allotment and a small holding. Until quite recently almost everybody thought there were very few allotments in England. He was one of those who were all along convinced to the contrary, and in 1885, when this question first came prominently before the public, just on the eve of the general election, he ventured to write to the *Times*, pointing out that the figures given in 1873, by the Liberal Government of that time, showed very clearly that there were then, as Mr. Rich had pointed out in his Paper, a very considerable number of allotments throughout the country. The figures published at the beginning of the present year showed still more clearly what a very large number of allotments actually existed. He quite agreed with Mr. Hall Hall that those returns were not absolutely complete. Almost everyone familiar with a particular locality could indicate allotments in that district not included in the returns. Then, again, in many places where there were potato-plots no return was made in the column so

headed. This omission was common to the returns for all parts of the country, and he could call to mind at once two cases, a very great distance apart—one in Devonshire and one in Cambridgeshire—in which plots of the kind were not returned, although, as those who were conversant with rural matters well knew, they were quite as much allotments as what was generally understood by that term. As Mr. Rich had pointed out in his Paper, allotments were no new things. Lord Onslow, in his excellent book, had described the way in which, nearly one hundred years ago, allotments were first started in this country; and he (the speaker) had seen the rules and regulations of several sets of allotments which were started in different midland counties some fifty years ago. Cobbett, in his "Rural Rides," writing in 1822, more than sixty years ago, said:—"You see here (Buck-" inghamshire) as in Kent, Sussex, Surrey, and Hampshire, " and, indeed, in almost every part of England, that most " interesting of all objects, that which is such an honour to " England, and that which distinguishes it from all the rest " of the world—namely, *those neatly-kept and productive little " gardens round the labourers' houses.*"

He believed, and the older he grew the more strongly he held the theory, that agriculture proper and rural affairs generally were to a very great extent regulated by the circumstances of the particular district. This would be found most true of allotments. In arable parts of the country one would find allotments properly so called. In pasture and grass districts would be found not allotments, but cow-pastures. When travelling in 1880 and 1881, he found in many parts of the eastern counties more allotments than the labourers cared to occupy; but among the hills and dales of North Derbyshire he found pastures upon which the inhabitants were allowed to turn their cows. Not infrequently there were two pastures of the kind—one being mowed each year (allotted in severalty), and the other

occupied in common. They rung the changes on the two pieces, the one mown one year being fed the next, and so on alternately.

He agreed with Mr. Hall Hall that it was too soon to criticise the Government Allotment Act of last Session. It remained to be seen how it would work. He feared that, if the compulsory clauses were to be put into operation, difficulties (he did not say great difficulties) would attend the working of the Act, and that the Act would in that sense have but a limited operation. It seemed to him that to set in motion the provisions of the Lands Clauses Consolidation Acts must necessarily be very expensive. It was no doubt true that those expenses were to a certain extent cut down in the Act, as it was right they should be; but still they must entail expense, and to provide allotments by their means was very like using a steam-hammer to crack a nut.

He thought that the Act would mainly operate *indirectly*. It was just this slight stimulus that was wanted to make those very few landowners in the country who were not inclined to grant allotments grant them. This seemed to him to be the idea of the Government in passing the Act, because it provided that the authorities were not to purchase or hire land unless the allotments could not be obtained at a reasonable rent and on reasonable conditions by voluntary arrangement between the owner of the land suitable for allotments and the applicants. It was only as a last resort, so to speak, that the compulsory clauses of the Act were to be brought into operation.

Many criticisms, of course, occurred to one in reading this Act. Every new Act of Parliament had to stand the test of minute criticism. A great many gentlemen, very learned in the law, at once set to work to pick holes in it. The Agricultural Holdings Act was an instance in point. Hardly a section of that Act but was picked to pieces, and great difficulties were predicted as likely to arise under it.

So it was with this Act. Some few gentlemen had already endeavoured to pick holes in it, but he thought it would be fairer to wait until its working could be tested. Many of the difficulties anticipated in connection with the Agricultural Holdings Act had been found to be illusions, or of very minor importance, and outgoing and incoming tenants and their landlords had managed to settle their differences satisfactorily, and, so far as he was aware, there had not been above two or three cases in which the interpretation of the Act itself had come before the courts. This experience would, he believed, be repeated in the case of the Act under discussion.

He would like to add a word with regard to another little Act not referred to at all by Mr. JEANS, but mentioned by Mr. RICH on page 31 of his Paper, namely "The Allotments and Cottage Garden Compensation for Crops Act, 1887." He noticed that Mr. RICH, although a surveyor, had taken the same view that legal writers on that Act had taken. He said:—"The measure is intended to supple-"ment the Agricultural Holdings Act, 1883, which it "will be remembered does not apply to tenancies of small "plots of land for a shorter period than one whole year." It was an open question whether the Act of 1883 did or did not apply to plots of two acres or less, because there was no limit as to size stated in it, whereas these small plots were expressly excepted from the Agricultural Holdings Act of 1875.

Neither of these Acts, however, applied to any land held on less than a yearly tenancy. This Act of 1887, as he conceived, not only supplied this deficiency as regards certain improvements comprised in it to which the landlord and tenant consent in the case of allotments which were often (perhaps he ought to say sometimes) held on tenancies of less than one year, and in the case of cottage-gardens which were also sometimes held at very short notice to quit, but it also gave

the allotment tenant a claim analogous to that which a farmer had under the custom of the country to be paid for his tillages, or the labour which he had expended upon his allotment, and any crops which might be growing upon it when he left it. The tenant was to be compensated for "crops, including fruit growing upon the holding in the "ordinary course of cultivation," and for "labour expended "upon, and for manure applied to, the holding since the "taking of the last crop therefrom in anticipation of a "future crop," just as under the customs of the country, as they knew so well, the tillages, or labour, of the outgoing tenant were paid for.

That view of the Act had not been adopted in any Paper that he had seen or in any article which he had read, but it appeared to him to be the true one.

In conclusion, he only hoped, like Mr. Chatfeild Clarke, that this allotment legislation would tend to retain the labourer in the agricultural districts, and prevent him from adding, by his presence in the towns, to the evils with which the urban population were already afflicted.

Mr. W. Eve (Fellow) observed that Mr. Rich, in his Paper, expressed regret that the occupiers of allotments could not compound for their rates. He (Mr. Eve) thought that it would be very objectionable if they could do so. It must be remembered that the object of allowing a person to compound was, not the benefit of the individual, but to save the general body of ratepayers from the loss of rates that resulted from the frequent removals of weekly tenants.

He apprehended that the overseers had no power to make an abatement in the case cited by Mr. Rich, in which the allotments had, as a consequence, to be given up as such. If they were rated too high they had the power, through the assessment committee, to have them lowered, but there was no power to relieve them. Therefore it was no fault of

the overseers, but rather of the owner in not taking the proper course and getting the assessment reduced if excessive.

Mention had been made of rating allotments at one-fourth for local-board purposes. He apprehended they were only chargeable on a fourth. It had been said that in some cases they do pay the full, but he did not think that legal. There was, he believed, a recent case* in which this allowance was carried to what he considered a very extreme point. It was a case of a market-garden with some forcing-houses upon it, and the occupier was allowed to pay on a fourth only in respect of these; but, as he understood, all pure allotments must come within that regulation.

One great good which this Act would do was that it would bring more land into the market, and thus lessen the rent of allotments, which, in many cases within his own knowledge, was very excessive and very much beyond the rent of the adjacent land.

He agreed with Mr. Rich, and differed from Mr. Jeans, as to the extent to which allotments were appreciated by the class for which they were intended, and he was quite surprised to hear Mr. Jeans say that they were not appreciated.

Mr. Jeans explained that he did not intend to say so; he referred to small holdings.

Mr. Eve (resuming) feared there would be a difficulty, if a matter went to arbitration, with reference to the purchase-price to be paid for the land, and that this difficulty would deter the proper authorities from embarking in purchases. He regretted, consequently, that the Act had not gone a step further and given compulsory powers to rent land. The Act contemplated, by the second section, the renting of land by voluntary agreement, but the compulsory powers related

* *Purser* v. *Worthing Local Board.* See "Professional Notes," vol. ii., p. 59.

to purchase exclusively. He could see no objection, in principle, to compulsory renting, and it would meet the case to which Mr. Watney alluded if the land required could be rented for a term of years, for the authority would know what they had to pay annually, whereas, as the matter stood, if they exercised compulsory powers at all, they must purchase it, which would involve them in great expense, and the land would not be likely to let at a rent which would recoup the outlay.

Something had been said about the precise meaning of the expression "the labouring classes"—a term which had been employed for many years in the Standing Orders of the House of Lords, and now of the House of Commons, in connection with artisans' dwellings, and it was always considered to include all artisans and, in fact, all persons working for weekly wages.

The question of cow-pastures only applied to certain districts. He happened to be familiar with many of these cow-pastures near Crewe, and he believed they were a wonderful boon to those employed at the North Western Company's works. There were many holdings within two miles of the town of Crewe—almost all occupied by artisans —where a wife, with slight assistance from her husband, attended to the cows and pigs which they kept. Of course the system was only applicable to counties where there was a large quantity of grass, and then he regarded it as an excellent way of supplementing the labourers' wages.

He sincerely hoped the Act would be carried out in its integrity. He was rather doubtful whether this would be the case, although the expressions which had fallen from speakers in that room led him to indulge a hope that it would be so.

On the motion of Mr. H. Herbert Smith (Fellow) the discussion was then further adjourned until the next Meeting.

AT

THE ORDINARY GENERAL MEETING,

Held on Monday, January 9th, 1888.

WILLIAM JAMES BEADEL, M.P. (PRESIDENT), IN THE CHAIR.

The adjourned discussion on the Paper on "Allotment Legislation," by ROBERT RICH (Fellow), and on the Paper on "Allotments and Small Holdings," by MARK JEANS (Fellow), read at the Meeting of December 5th, 1887, was resumed by

Mr. H. HERBERT SMITH (Fellow), who said the reason why he had ventured to take part in this discussion was because he happened to represent an estate which had, he believed, the largest system of allotments of any estate in England, and he thought that it might, perhaps, be of some interest to the Members present if he were to give a few facts and figures regarding the allotments which he had under his charge. Before he did so, perhaps he might explain why he thought allotments were now more or less generally in demand, and why they were desirable and necessary. His views on this subject were embodied in an article which, in conjunction with Lord EDMOND FITZMAURICE, he had prepared for the *Nineteenth Century*, and which appeared in that magazine about twelve months ago. It was called "Enclosures and Allotments,"—possibly some of the Members present might have seen it. He much regretted that Lord EDMOND FITZMAURICE was not present. He hoped he would have been able to come, but at the last moment he

wrote to say that he was prevented by a previous engagement, or he thought they might have heard some very valuable remarks from him, as the present subject was one to which his lordship had paid a great deal of attention.

He should, perhaps, in the first instance, remind the Meeting that during the last 100 years a very large portion of the rural districts of this country had been inclosed. These inclosures, which were a familiar subject to every member in the room, had, there could be no doubt, by increasing the fertility of the land, by giving the country better roads and footpaths, and by doing away with the evils of the common field, been attended with great advantage to this country, and had made two blades of grass grow where one grew before. But he was one of those who thought that while they had been attended with great advantages to the community at large they had, in some instances, inflicted hardship on the poorer classes. No doubt the large landowners had received enormous advantages from inclosures, but the man who had exchanged his right of turning out his cow or his horse on to a common, or his right of cutting turfs or wood for fuel, for a small sum of money or a small piece of land which he was eventually obliged to sell, perhaps, to pay the expenses of establishing his claim, could not be said to have derived much advantage. That, he thought, had been recognised by many people, and William Barnes, the Dorsetshire poet, whose writings would probably take a permanent place in English literature, had taken this view, and had described two agricultural labourers talking, and put their conversation into verse. John said to Thomas, deploring his loss from the common being inclosed

> "'Tis the common tat da do I good
> The run var my vew geese or var my cow."

Thomas tried to console him with the prospect of getting an allotment,—

"I wer tuold back t'other day
That they be got into a way
O' letting bits o' ground to the poor";

to which JOHN replied,—

"Well, I da hope 'tis true I'am zure
An, I da hope tat they wull do it here
Ar I must goo to workhouse, I da fear."

Then JOHN continued to mourn the loss of his common rights. That was the view taken by WILLIAM BARNES, than whom no man better understood rural life. As compensation for the loss which had been sustained by the poorer classes of the community in consequence of the inclosure of commons, many of those who had benefited largely by these inclosures were induced to lay out allotments, and there was no more striking instance of that than in the county of Wilts, in which he lived.

By a recent return it was found that there were more allotments in the county of Wilts than in any other county of the United Kingdom. The number was, he believed, 22,000 allotments not exceeding 4 acres. Next in the list came Northamptonshire with 20,000 allotments; and the third was Leicestershire with 19,000 allotments. The estate which he had to do with belonged to the Marquis of LANSDOWNE. That estate contained 11,000 acres of land, 1,000 acres of which was taken up by woodland. There were upon it about 800 separate allotments varying from 10 perches to 4 acres. The area occupied by them was 600 acres. During the very severe agricultural depression of the last eight or nine years the whole of that land had been kept in cultivation in a very remarkable manner. The crops raised upon it were far superior to the crops that had been raised by the surrounding farmers—in fact, the magnitude and quality of those crops, he thought he might say, would astonish many large scientific farmers at the present time. The rents had been most regularly paid. He was looking

up his allotment rental accounts that morning, and found that out of the large amount of rental represented by these allotments they had under £100 arrears. He had managed that estate now for about eight years, and had never had to county-court a single tenant for the rent. At present there were only three or four of the allotments unlet, and they were unlet merely because the tenants had neglected them for the greater attractions of the public-house, and consequently left their land in such a condition that no other tenant cared to take it until it was again got in order. The occupiers of the ground told him that the pig which they fat every year from the refuse of the crop, with the help of a sack or two of barley-meal, enabled them to pay their rent, and that as remuneration for the labour which they expended on the land, outside the hours of their regular work, they got the whole of the crop.

Perhaps it might interest the Members present if he were to read an account of the way in which the system on Lord LANSDOWNE's estate came into existence:—"The Wiltshire estate of the Marquis of LANSDOWNE is situate close around, and, in fact, comprises a considerable portion of the town of Calne, which at one time carried on a large business in the manufacture of cloth, great quantities of broad white woollen cloth of a particular description being made for the East India Company. Towards the beginning of the present century the cloth trade of the west of England began to be seriously affected by the introduction of machinery, and the consequent springing up of extensive manufactories in the northern and midland counties of England, where coal could be obtained and machinery more easily worked and constructed. Consequently a large number of the population of the town of Calne and its neighbourhood were thrown out of employment, and the rates rose to an enormous extent. The idea occurred to the

then Lord Lansdowne that if small portions of land were let out at a moderate rent, the distress might, to some degree, be alleviated. He therefore, in the year 1812, laid out two fields in the neighbourhood of Calne as field-garden allotments, which proved such a success that two years after, in 1814, two more fields were laid out; and in 1816 three more were laid out, and in 1817 again three more. The cloth trade, though it had received a severe blow, lingered on until about the year 1830, when, owing to some additional stimulus to the northern trade, it was finally stamped out. In the meantime, the inclosure of the parish of Calne, and the adjoining parishes of Blackland and Cherhill, had taken place under special Acts of Parliament, and Lord Lansdowne resolved, with a view to meeting the wants of the population, who were suffering from the departure of their trade, from the ill-effects of the old poor-law and the law of settlement, and also, perhaps, to some extent from the inclosure of the neighbouring commons, to continue the allotment system on a much larger scale than he had hitherto attempted. Consequently, in the year 1831, he laid out no fewer than thirteen different fields, and in the following year four fields, in the next year seven fields, and in the year 1835 two fields. Such were the causes and the means of the Bowood allotment system coming into existence. But this was not all. Other landowners also, having seen the good effected by the system, determined to adopt it, and a very considerable quantity of land was laid out in a similar manner on the estate of Lord Crewe, which is adjacent and intermingled with Lord Lansdowne's property, though it is of much smaller acreage. Other freeholders round the town began in like manner to adopt the system, and there are now in the neighbourhood of Calne nearly 100 acres of allotment land, in addition to those of Lord Lansdowne, making

altogether a very considerable tract of land, cultivated almost entirely by spade husbandry, and by the labour of individuals employed in other ways through a large portion of the day."

He had the whole of that land under his charge, and he had been as successful with the other land as with that of Lord LANSDOWNE. In 1834 the Poor Law Commissioners, he believed, made considerable inquiry as to the question of allotments; and Captain CHAPMAN, one of the Assistant-Commissioners for the west of England, made a short estimate of what a labourer could get out of an allotment. He took a quarter of an acre, and calculated it in this way:—

	£	*s.*	*d.*
Rent for a quarter of an acre	0	12	0
Digging	0	8	0
Manure	0	10	0
Seed	0	3	0
Planting	0	4	0
Hoeing	0	8	0
Digging and hauling	0	10	0
Total, supposing the man to live and pay for everything	£2	15	0

Produce:—	£	*s.*	*d.*
Twenty sacks of potatoes	4	10	0
Other vegetables	1	0	0
	£5	10	0
Less labour, &c., as above	2	15	6
Clear profits, supposing man to live and pay for everything	£2	14	6
If all done by the man	£4	4	6

According to these figures it would be seen that the labourer occupying a quarter of an acre of land would make a considerable profit in the course of a year, and the prices mentioned—though lately prices had been very low—he did not think excessive, being only 4*s.* 6*d.* a sack for potatoes, a price which represented a minimum figure in his neighbourhood. There was an opinion also expressed in the report by a practical man to the effect that a man who worked for a farmer for 12 hours, from 6 to 6, with the help of his wife and family, could manage half an acre of land (supposing it half potatoes), keep a pig, and support his family, and that a mechanic could do more.

It must not, however, be supposed that landlords found it such an advantage to let allotments as had sometimes been asserted—the large amount of business that was entailed by the great number of tenants, the number of receipts to be given, the number of audits to be held, and the number of agreements to be made out, where they had agreements, as was the case on Lord Lansdowne's estate, must necessarily add much to the expense of the management, and it must also be remembered that in all cases of allotments the landlord paid tithes and rates and other charges upon them. There was also this: that one acre of allotment-ground, or half an acre, or any quantity of allotment-ground, represented the net quantity of ground, without deduction for roads, fences, buildings, &c. The occupier got exactly the amount of land capable of being cultivated which he paid for.

He had read Mr. Rich's and Mr. Jeans' Paper with a considerable amount of attention, because the subject was one in which they must all take great interest, especially as it was now dealt with by an Act of Parliament. He must say he was very much astonished on reading Mr. Jeans' Paper to find that he thought there was little or no demand for allotments; so much surprised was he that, had he not known

Mr. JEANS, he should have been somewhat doubtful whether he had had any practical experience of allotments. All he could say was, his own experience differed very much indeed from that of Mr. JEANS. He had found, on the contrary, a great demand for allotments—much more demand than for farms—and he never had any difficulty in letting allotments, whereas he had found considerable difficulty in letting farms.

Of course it might be said that possibly his experience was an exceptionally fortunate one, and it might also be said that there might be the special advantage from the character of the soils on the estates he had spoken of. He would, therefore, give a short description of the soils on those estates. The geological formation of the Bowood estate was a curious one. It represented a great number of different soils, from light sandy land down to stiff clay. He had prepared the paper in his hand in order to meet any criticisms regarding the soil being especially adapted for allotments. It appeared they had in calcareous grit, which was sandy soil, 44 acres, the rent of which was £101 11*s.*, average rent per acre £2 5*s.* 8*d.*, landlord paying rates and tithe; calcareous grit—the same formation but better soil—good loam, 41a. 2r. 10p., the rent being £103 11*s.* 4*d.*, average rent per acre £2 9*s.* 10½*d.*, landlord paying rates and tithe; Oxford clay, which was very heavy soil, 100a. 1r. 15p., rent £199 9*s.* 6*d*, average rent per acre £1 19*s.* 9*d.*, landlord paying rates and tithe; coral rag, adjoining the town of Calne, 145a. 3r. 16p., rent £499 15*s.* 4*d.*, average rent per acre £3 8*s.* 6*d.*, landlord paying rates and tithe; Kimmeridge clay, adjoining the town of Calne, 58a. 2r. rent £143 18*s.* 10*d.*, average rent per acre £2 9*s.* 3*d.*, landlord paying rates and tithe; upper greensand 17a. 1r. 5p., rent £37 16*s.*, average rent per acre £2 3*s.* 8*d.*, landlord paying rates and tithe; chalk 21a. 2r. 8p., rent

£43 12*s.* 6*d.*, average rent per acre £2 0*s.* 6*d.*, landlord paying rates and tithe; calcareous grit—again sandy soil—adapted for early vegetables 68a. 0r. 17p., rent £245 6*s.* 4*d.*, average rent per acre £3 12*s.*, landlord paying rates and tithe; lower greensand 19a. 2r. 6p., rent £46 2*s.* 6*d.*, average rent per acre £2 7*s.* 2*d.*, landlord paying rates and tithe. The tithes in the parish of Calne varied from 9*s.* to 12*s.* an acre. The rates were 2*s.* 6*d.* in the £, except within the local board district, where they were higher. There were about 800 tenants, whose holdings varied from 10 perches to 3 acres. They would see from that there was a very considerable difference of qualities and sorts of soils, nearly all sorts being represented.

Now, in regard to the Act itself, it had been so fully and ably dealt with in the discussion at the last Meeting that he did not propose to say much about it. The only remark he had to make was that he quite agreed with Mr. Watney in what he said regarding the guardians, who constituted the rural sanitary authority, having the matter vested in them. The guardians in country districts, as was well known, were almost entirely farmers, and he was bound to say that he did not think a farmer who was living in the neighbourhood was a proper person to judge whether a labourer should or should not have an allotment. He thought the Act would do a certain amount of good. It was not, perhaps, altogether what he should have liked to see, but still, in the absence of a better one, it would, no doubt, be a considerable boon to the country. He did not, however, think there would be much done under the Act, for all these Acts were more valuable for what they did indirectly than for what they did directly. He thought, at all events, it was an Act which was deserving of the support of the Institution, and one which he, personally, considered to be a valuable addition to the legislation of this country.

Mr. E. Ryde (Past-President) said that he took part in the discussion under some disadvantage, not having heard the Papers read, nor the discussion that had taken place at the last Meeting. He had had the advantage of hearing the discussion, so far as it had gone on the present occasion, and he was very pleased to find that, at all events, there were some 600 or 800 cultivators of the soil left in the country, who could carry on their business with profit and satisfaction to themselves and pay their rent. It had occurred to him, while listening to the speech just delivered, that there did not seem to have been any great necessity for the Act under discussion. Those 800 cultivators seemed to have flourished tolerably well without legislation. That was just what an old-fashioned man, like himself, would have thought they might be able to do; and it was more to the advantage of owner and occupiers that such an occupation should be so carried on. He thought that there were a sufficient number of sound-headed Englishmen left in this country to make bargains (whether for the renting or letting of land) with each other, without the assistance of a Member of Parliament on either hand. But he would like everybody to look at the question practically, neither thinking more nor less of this Act than they ought to think. He was exceedingly grieved that during the last 15 or 20 years there had been so much legislation in connection with land in the United Kingdom. He thought the country would have been much better without it, but he would not enlarge on that question now.

To discuss these Papers in the time within which the Members would be willing to listen to him, would be a task in which he could not succeed; therefore he only proposed to deal with the subject very shortly.

There were one or two broad principles capable of discussion. First of all, he would say, as an old land-surveyor,

that he took great exception to the word that was used as the name of these little gardens. He thought the word "allotment" was very unhappily applied to them. The term "allotment," as he understood it, meant, in a surveyor's office, an allotment under an inclosure award. Some had asked whether allotments were "small holdings." They were holdings, it was obvious, but they were small gardens, and they could have been described, so that all could understand them, as small plots of land used for garden purposes. He admitted, however, that everybody now understood what was meant by the word "allotment," notwithstanding it was somewhat hypothetically applied.

He would pass from the name (and, after all, perhaps, there was not much in a name) and would come to what the allotments should be. He would, first of all, consider the agricultural labourer. His view was that there should be, on every farm, a sufficient number of good cottages for occupation by the permanent labourers on the farm. He thought that where the want was not supplied it should be, but it could not be done in such times as these. There was no encouragement to improve land while times remained as they are. It would be exceedingly desirable and advantageous to all parties that each of such cottages should stand in a garden of not less than a quarter of an acre and not more than half an acre of land. That was what he held to be a sound view of the requirements of the agricultural labourer. If the agricultural labourer was to have an allotment a mile from his house, he ventured to say that it could not be worked by that labourer at a profit. What time had the agricultural labourer to cultivate a plot of land? It had been said that he should have a sufficiently large piece of land to occupy his leisure hours. What leisure hours had an agricultural labourer at this time of year? He began work as soon as it was daylight,

and left off work a little after dark. What time had he to garden on his own account? In the summer it might be said there was plenty of time. But in his part of the country the agricultural labourer worked till dark in the summer as now. He was paid so much per hour for all overtime, and that so much per hour amounted to much more than he would get by cultivating a garden on his own account. If, however, he had a garden at his house, his wife and children could do a little in it, and between them they could contrive to grow something which would be useful to the family. No one disputed that.

He would now pass from the agricultural labourer, for the Act of Parliament intended to give gardens to town operatives as well. If it was desirable for every labourer to have a garden close to his house, it was equally desirable for the town operative. But an operative living in Westminster would find it very awkward to have to go down, say, to Woking Common to cultivate his garden! That was an absurdity. Of course it was only a question of degree, but he did not know where he could be accommodated sufficiently near to his residence. Coming to country towns, it was said there was a demand of a certain kind for garden-plots round country towns. There was a large number of town operatives who knew nothing whatever about gardening, and who certainly could not cultivate a garden at a profit. On the other hand, there were those who had been brought up in country districts who knew all about gardening, and who, if they had ground close to the town, would make it of advantage to them, but it was not then the advantage that some seemed to think it was. It was desirable, no doubt, that there should be land that could be let for this purpose, and was it not the case that if there was any demand there was no difficulty in getting such land? He had known the supply to be quite equal to the demand, and he did not

believe that more could be done by Act of Parliament than by private dealing.

The situation of the allotment-land must be as close to the town as possible—*i.e.*, it must be the land which was just on the outskirts of the town. What was that land? It was accommodation land. It always commanded a little higher rent than ordinary agricultural land, and higher rents than had been talked about that evening—namely, 50*s.* an acre, including rates and taxes. That only meant about 40*s.* an acre net rent. One could not rent land in the outskirts of the town at 40*s.* an acre. Such land, moreover, was sure to be ripening rapidly into building land, and, in the course of a few years, was likely to be covered with houses.

Passing from the idea of renting this land, to the idea of purchasing it under compulsory powers, there were, he thought, many men who discussed these questions with a very imperfect acquaintance with them. Any attempt to fix the value, under compulsory powers, of land near a town, would be by a statement of the ultimate value as building land. The owner would say this field of mine is worth £700 an acre, and I shall sell it at that price. He might do so in little pieces when ripe! But if it took 14 years to get rid of the whole piece of land, £700 an acre then was only the equivalent of £350 in present money. This was what landowners did not understand. He referred to this because he did not believe it possible to take land for such a purpose compulsorily, in the same way as water, gas, or railway companies acquired land.

He thought that after one town had taken land compulsorily and gained experience, it was not likely that any other town would follow the example. But supposing they got the land at £350 an acre, or even £200, how could it be made to answer? At 3 per cent. on the outlay the rent would come to £6 an acre, and adding rates and taxes to

£8 an acre, instead of the 50*s.* to which reference had been made that evening. He did not want to discuss this at any unpleasant length, but supposing the board of guardians or the corporation of any town had bought a piece of land adjoining the town, and that they were bound to let it out in garden-allotments. It would alter the progress of that town if such an occupation as that were permanently established, and it would depreciate surrounding land. As the town increased, the buildings which would have come on to this land would have to go beyond it, and the gardens would be situated in the middle of the town. This would be very desirable from an artisan's point of view as being close to the occupations; but could it be supposed for a moment that when those allotment-gardens became surrounded by buildings, and worth £700 an acre for building purposes, there would not be an outcry, and that Parliament would not again be appealed to to enable them to sell this land at a profit? This would be, indeed, an unearned increment!

He did not wish to say a word against the Act of Parliament—let it have its full swing—but he would say, as a practical man, that it could not work in the direction of the exercise of compulsory powers for the pruchase of land.

Coming back again to the labourers themselves, were they going to be, every one of them, benefited by having land so placed at their disposal? They must bear in mind that, in performing garden operations, the time when the farmer himself was busy, the time when he most wanted the services of his men, would be the time when the agricultural labourers, if they had those allotments on anything like a large scale, would require to be working on their own gardens. He believed farmers would still have control enough over their men to say, "I cannot stand this. Unless you

" are prepared to give up your time to me when I want you, " I must get somebody else."

Everybody used to make their own bread. What had happened in the last fifty years? Everybody found it now better and cheaper to let the baker (who did his bread-making on a large scale) do the work, and sell the bread, so that the people who used to make their own bread might be engaged in other occupations to which they could give their whole time. He only put that one instance as an illustration of what he meant; and, depend upon it, quite apart from any pleasure it might be to these men to have their gardens, if it were put in their way to buy their vegetables at the same cost as they could grow them, it would be much better for them. What he did, in his humble way, was this. If a man of his had a cottage and no garden, he gave him three or four sacks of potatoes every year. He assured the Meeting that his men who lived in his cottages without gardens, under the conditions he spoke of, were just as happy, contented, and satisfied as men who lived in his cottages which had gardens, and to whom he did not give potatoes. What he was coming to was this. Give a labourer a comfortable cottage, such as a decent man could live in; give him, if possible, a garden round his cottage, so that he might have occupation and amusement. Give him an equivalent if he could not have a garden. If he voluntarily rented an allotment of land it would do no harm, but he considered that rural boards of guardians should not embroil themselves in any compulsory operations under the Act of Parliament, for, if they did, it seemed to him, they would involve themselves in serious loss, and, in the long run, nobody would be in the least benefited.

Mr. J. Martin (Fellow) said he did not propose to take part in this discussion much further than to give his ex-

perience in the past with regard to allotments. It would serve no useful purpose to discuss the question whether the Allotments Act was passed to meet a genuine want or merely for political purposes; it was now the law of the land, and one must make the best of it. But he might state that the general opinion of farmers in Lincolnshire with whom he had talked on the subject was, that the Act was unnecessary, that the labourers in the county were better off now than they had ever before been in living memory, and that it was the tenant-farmers who stood most in need of Parliamentary assistance. They were further of opinion that it would not really benefit those for whom it was specially passed, because it would be the means of arousing ill-feeling between master and man. They looked at it in this way: it would take a man three weeks, at the least, in a year, to cultivate an acre of land, and just in the seasons when the farmer had need of extra hands his men would be away looking after their own crops. If a manufacturer were placed in a similar position he would engage only those who agreed to give him their whole time in working hours, and, they asked, who could blame the farmer if he did the same, and if he did so how was the Act going to benefit the labourer.

He might here state how allotments had hitherto fared in some cases which had been continually under his notice, first taking his own and two neighbouring parishes. In these the population was 705, 1,349, and 752 respectively, the quantity of land let in allotments 14, 8, and 3½ acres, and the number of allotments 44, 38, and 28 respectively. In the first-named case it was land left to the poor of the parish that was divided into gardens, and let at 40*s.* per acre, and, notwithstanding that some of the rent was returned to each occupier at the end of the year, the supply exceeded the demand. At the present time four men had

two allotments each, and two were occupying an extra plot rent-free, because the late tenants allowed the land to get into a foul state. In the second case nine of the 38 allotments were in the hands of two men, and there were only 16 labourers in all occupying, the remainder being artisans, and who, it was only fair to say, managed their plots better and to greater advantage. In the last-named case there were formerly 13½ acres let in half-rood allotments, but about 10 years ago the land had become so foul and full of twitch that the owner had to take 10 acres in hand and fallow it. Before the passing of the new Act there was no call for allotments in this parish, and at present 12 of the 28 plots were in the hands of six occupiers, and one-third of the total were occupied by artisans.

On large estates for which he was agent in another part of the country, there were years ago a very liberal number of allotments provided, but in course of time these became vacant and in a most foul state, and had to be taken in hand. Now, he had received from the same parishes, among other applications for allotments under the Act, applications from two labourers who did not so much as dig over their own gardens or cultivate them in any way during the whole of last year.

In another case a friend of his, having a chance of purchasing 7 acres of land in the middle of the village in which he lived, bought it at £60 per acre, with a view to letting it in 7 allotments. He had 6 applicants, but the seventh never came forward, and this part of the land was still in his own occupation, notwithstanding the rent charged paid only 2 per cent. on the purchase-money.

With regard to cow-pastures (which some of those who had taken part in this discussion seemed to favour), on a large estate which he managed about 15 years ago there were 8 of these runs in two parishes, but they, too, in course of time,

fell into the hands of the proprietor, and most of those who had occupied them died in receipt of parish relief.

It would be admitted that these experiences of his were not calculated to make one feel very enthusiastic about allotments: nevertheless, he was quite prepared to carry out what he conceived to be the true spirit of the new Act. It was provided in this Act that each allottee should have not one acre, but "not exceeding one acre"; and he would suggest that the allotments should, in the first instance, be set out in roods, and that the allottees should qualify themselves by good management to occupy up to four allotments each. In the case of an applicant for a large farm, an agent would want to know not only whether he had sufficient capital, but what was his character as a farmer, and he (Mr. Martin) saw no reason why the same principle should not apply in letting allotments.

It was not the allotment, but the labour and judgment of the man that tilled it, that would render its acquisition of value.

Mr. R. C. Driver (Vice-President) thought that the Members of the Institution were much indebted to Mr. Rich and Mr. Jeans for the two Papers recently read by them, notwithstanding the fact that they took opposite views. It must be borne in mind that this was the nineteenth century, and the question of how to improve the condition of the agricultural labourer and the town artisan was a national one. The Allotments Act had now passed, and it was the duty of all to loyally assist its development, irrespective of party or politics.

The country was indebted to Mr. Jesse Collings for having brought the measure so prominently forward in past years, but it was still more indebted to the present able President of the Local Government Board (Mr. Ritchie)

for bringing in the Bill, and carrying the same into an Act, notwithstanding the great opposition which he had met with.

The Bill, undoubtedly, had its failings, and, as time discovered these they would no doubt be amended. The great thing was to facilitate allotments for the agricultural labourer as well as for the town artisan. He had been over fifty years in business, and largely concerned with agricultural estates, and his belief was that the agricultural labourer had not sufficiently appreciated the field-garden system. The term "allotment" was a misnomer. It was really a system by which a farm or town labourer could obtain a plot of land if he so desired. The agricultural labourer, as a rule, had a fairly good garden around his cottage, and was therefore not so keen to have another garden; and, moreover, the farmer (his employer) was not quite with him in this object, as he feared the labourer would expend his strength on his allotment in the early morning, or husband his strength during the day for working his field-garden in the evening. Thus the field-garden system was not an absolute necessity in agricultural districts, but, where field-gardens existed near towns, they were in great demand by the artisan labourer. The Act as now passed had somewhat altered the question. It brought the subject prominently before the whole country, and, from his own experience and from what he had been informed, there were now very large demands from agricultural labourers, and especially from town artisans; and, moreover, the feeling was growing among owners of land that convenient portions of their estates must be set apart for this object.

He hoped the agricultural labourer would take advantage of the present Act. There were a number of agricultural labourers who had good wives and well-brought-up sons and daughters. These sons would be very glad to occupy their spare time in the cultivation of their garden-allotment, and

the daughters, with the wife's assistance, would attend to the cow, to be partly maintained on the common pasture. The garden-allotments would produce the vegetables for home consumption, and, possibly, some swedes as winter feed for the cows. He looked on the common pasture as the great feature in the Act. In fact, it was a return to the good old days of common pastures and roadside wastes (now almost all inclosed), which the labourer who kept a cow used to freely use for feeding it on. Therefore he thought, generally speaking, these cow-pastures in connection with allotments were most desirable, and would prove highly beneficial.

Now, with reference to allotments near towns. His friend Mr. Herbert Smith had brought forward splendid instances of success; but he must bear in mind that the Bowood Estate, of which he was the happy agent, was situated, he believed, close to two important manufacturing places, Chippenham and Calne. The artisans (with few exceptions) had no vegetable gardens [Mr. Herbert Smith assented], and, inasmuch as town artisans had not always full employment, the father with his sons could occupy spare days and times, and thus exhaust their bodily strength in a good healthy employment, while, no doubt, their wives and daughters would be greatly charmed with the cow-pasture and the occupation it gave them. To the town artisan the allotment-system and cow-pasture was an immense boon. Moreover, it would induce thrift, and with that temperance would follow. Thrift and temperance should be cultivated in every possible way, and he saw nothing to induce it more than increasing as far as possible the facilities for getting allotments and cow-pastures in town districts. The agricultural labourers had not the same blank days and spare times as the town artisan, or his temptations, and were thus, as a rule, more thrifty and temperate.

He agreed with Mr. Ryde that there would be much difficulty in finding pieces of land near towns for the purpose. No doubt many landowners would be willing to let back (as eligible as front) portions of their lands for 10, 15, or 20 years. Country towns, as a rule, did not increase much in size, and in some country towns there was no building element. He went down to the same country towns year after year, and rarely saw an additional house. One might get land easily around some country towns at £100 an acre, and, he believed, in other country towns at less than £200 an acre in fee, and there would be no difficulty in obtaining eligible land, especially as frontage land was not required. One and all, irrespective of party or politics, should hail the Bill as a great attempt in the right direction to assist the labourer, whether agricultural or artisan, and everyone connected with land should honestly and loyally encourage and promote its success.

Mr. J. Weall (Fellow) thought that the Act had indirectly caused landowners to ascertain whether there was or was not a demand for allotment-gardens. In the case of one estate under his management, the landlord, finding that allotments were required, laid out several acres of them.

In the country town in which he lived, one of the political clubs drew up a petition, which was signed rather extensively, and was sent to the local authorities, demanding that allotments should be provided under the Act. A public meeting was held, the speakers at which seemed to think they could buy land at purely agricultural prices, close to the town and to their own homes. It was pointed out, however, that land close to the town could not be obtained under £250 or £300 an acre, which meant £10 or £12 an acre rent, and they came to the conclusion, at the meeting in question, that it would not do to obtain the land under compulsory powers.

Under these circumstances, certain gentlemen present promised to make an effort to obtain it from owners at reasonable rates, for short terms of years, which would no doubt answer the purpose, and this course would probably be followed in other towns in preference to attempting to obtain the land under compulsory powers.

Mr. R. Rich, in reply, tendered his sincere thanks to the Members for the kindly spirit in which they had received and criticised his Paper. The President had asked him to reply, but, indeed, there was very little to reply to. That should be a happy state of things, but he generally found it more interesting to traverse adverse criticism than to comment on speeches endorsing his own statements.

At the close of his Paper, he had said that he was mainly anxious to elicit the opinions of the experienced Members of the Institution, and he now thought he might fairly flatter himself that he had achieved his object, for there had been two evenings of really interesting debate. He was much pleased with Mr. Hall Hall's legal criticism. He hoped that he (Mr. Hall) would soon issue another edition of his able treatise on Allotment Law, for although that book had been issued scarcely twelve months, it was now practically obsolete, so far, at least, as the present state of the law was concerned; for, of course, it contained no reference to the two very important Acts passed at the end of the late Session.

Some doubts had been expressed by various speakers as to what persons were included in the term "labouring population" mentioned in the Allotments Act, as no interpretation of the expression was to be found in the definition clause. He ventured to refer Members to page 33 of his Paper, in which he quoted the words of the President of the Local Government Board on introducing the Bill to

the House—words which seemed expressly to imply that the Government intended the measure to benefit town operatives, artisans, small dealers, and petty tradesmen, as well as purely agricultural labourers.

He was struck by Mr. DRUCE's statement that "the "older he grew, the more strongly he held the theory that "agriculture proper, and rural affairs generally, were to a "very great extent regulated by the circumstances of the "particular district. This would be found most true of "allotments." In endorsing that opinion he (Mr. RICH) would adduce a pertinent experience which had lately been brought to his notice, when visiting Lord TOLLEMACHE's celebrated three-acre "cow-holdings." His lordship's agent had told him that all his most skilfully-contrived attempts to acclimatise the Cheshire system of cow-keeping by cottagers, on the Suffolk estate, had failed. The Cheshire labourers appeared to be born cow-keepers—to have an innate liking for a cow and its care—whereas the arable landowners of Suffolk seemed to be either incapable of understanding such matters or to have an innate dislike to the duties of a cottage dairy. Mr. DRUCE had demurred to his (Mr. RICH's) statement that the "Allotments and Cottage "Gardens Compensation for Crops Act" was "intended to "supplement" the Agricultural Holdings Act, 1883. He would draw his attention to a speech made in the House of Lords on the 28th July last. Lord MONK-BRETTON remarked that "he had had charge of the Agricultural Hold-"ings Act, 1883, in its passage through the other House. "The Allotments Compensation Bill was supplementary to "the Agricultural Holdings Act, 1883, and extended the "like compensation to the class of persons who were not "included in that Act, namely, persons who occupied small "plots of land for a shorter period than one whole year. "The Agricultural Holdings Act, 1875, excluded persons

"who held less than two acres from the benefit of compen-
"sation, and the Act of 1883 extended the Act to persons
"holding not more than two acres, provided they held for a
"term of not less than one year. This Bill extended the
"benefits of the Act to persons who held for less than that
"period, and it gave compensation not only to a new class of
"persons, but gave it for certain things not included in the
"Act of 1883." There was, perhaps, no higher authority than Lord MONK-BRETTON on the Agricultural Holdings Act of 1883. He, therefore, thought the above quotation from his speech should remove Mr. DRUCE's doubts as to the relationship between this Act and the Allotments Compensation Act of last Session.

Mr. EVE had stated that "he apprehended the over-
"seers had no power to make an abatement in the
"rating case cited by Mr. RICH, in which the allotments
"had, as a consequence, to be given up as such." If, however, Mr. Eve would refer to the third section of the Poor Rate Assessment and Collection Act, 1869, he would be convinced that the overseers were authorised, though not compelled, to allow a reduction of 25 per cent. on the rates to the owner who would undertake to pay them in accorddance with the provisions of the Act.

The trenchant criticism of Mr. WATNEY commenced with the statement that "Mr. RICH seemed to anticipate a very
"eager desire on the part of labourers and artisans to obtain
"allotments." If, however, Mr. WATNEY would do him the honour of looking at his Paper again, he felt sure he would not be able to discover any ground whatever for that remark. He then went on to say that "he must take some exception at
"once to the spirit of Mr. RICH's Paper. It was true that
"he claimed to have divested his observations of all political
"bias, but a close examination of the Paper disclosed a
"certain tone of satisfaction at the way in which the wedge

"had been driven, and an anticipation on his part that it "would be driven still further in the future." He (Mr. RICH) must disclaim this imputation of a display of political partiality. He would appeal to Mr. WATNEY and to the other Members to point out one sentence in his Paper which would afford a just ground for this accusation. His "English" might not be perfect, but his every sentence bore one obvious meaning, and he thought it hardly fair to hold him responsible for possible alternative interpretations. Mr. WATNEY added that he "entirely disputed Mr. RICH's assertion that "the Allotments Act gives to the labourer as a right "that which was previously but a privilege." He (Mr. RICH), however, would abide absolutely by every word of that opinion. Though he might be treading on tender ground, he would ask them whether they had never known an old-fashioned landowner, here and there, who had looked upon the granting of allotments in certain cases as a privilege, and not as the right of the labourers in parishes of which he monopolised the ownership. The stamping of a privilege as a right was by no means a rare occurrence in British legislation. A somewhat parallel instance that had just occurred to him was the Education Act of 1870. From that time forward the English child, however poor it might be, had his previously uncertain privilege of education confirmed to him as a right. Mr. WATNEY had added that "the labourer had "always had the right to hire and purchase what he could." He (Mr. RICH) ventured to characterise that as an unreasonable argument. He, for instance, had always had the right to hire an acre in the moon for an allotment. But after surmounting the trifling difficulty of obtaining an interview with the "man in the moon," that lord of the manor would, assuredly, like some other landowners he knew, send him empty away on the plea that he was a poacher, or that he

was opposed to land-monopoly. The essence of the Allotments Act lay in the provision that, henceforth, the labourer could require his elected representatives to let him a little land on fair terms, and that he need no longer depend solely on the caprice of an irresponsible individual. Mr. Watney contended that the price of land in the outskirts of the largest cities and towns was such as to "entirely preclude" the adoption of the Act. Such price undoubtedly curtailed, but it certainly did not prohibit, allotments in such places; for many hundreds of successful allotments already existed immediately around Nottingham, Leicester, Gloucester, Derby, and other towns. He thought that land lying in wait for the development of its building value was eminently fitted for cultivation as allotments, and it should not be forgotten that the Act authorised the hiring of land on lease as well as gave power to purchase.

He was very much pleased to hear Mr. Herbert Smith's remarkable statistics relating to the very great numbers of allotments in his charge. His narrative proved that he (Mr. Smith) had thoroughly studied the management of allotments, and with the usual result of well-directed study—success. He sometimes thought—when he heard of allotments on certain estates being wholesale failures—that the fault was not entirely that of the cultivators. To understand the conditions necessary to successful allotment letting and holding required only a less degree of skill and care than the management of larger holdings.

He was much gratified that no speaker had found fault with his new definition of the term "allotment," and he trusted, therefore, that they considered it entirely satisfactory. When Mr. Ryde had argued that labourers and town operatives could not possibly manage large allotments or those at a distance from their homes, he seemed to have overlooked the fact that labour is by no means constant in

these times. Too often, workers had "days off," which would enable them to prove their allotments to be a real and valuable boon to them. And, as he had pointed out on page 40 of his Paper, even for the selfish sake of keeping the labourer ready to the farmer's hand, an allotment large enough to occupy the labourer's spare days as well as his spare hours, would often prove an advantage to his neighbours as well as to himself and family. There were some few minor points upon which he would have wished to have touched, but, as he had already exceeded the time allowed him, he would retire in favour of his fellow-essayist, Mr. JEANS.

Mr. JEANS, in reply, said he regretted that the views expressed in his Paper had been somewhat misconstrued by Mr. WATNEY, Mr. CHATFEILD CLARKE, and Mr. EVE. He was especially careful to distinguish, at the commencement, between allotments and small holdings, which he discussed separately. He contended there was little or no demand for more "allotments," but he did not question the great boon of from 20 to 40 poles of garden-ground for a cottager to grow vegetables, &c., for his family, where he had spare time to cultivate it. He knew that such allotments were very highly valued. His remark that the times were against any extension of the system applied solely to small holdings, which he considered a totally different matter, and the two were well defined and distinguished by Mr. HALL. Having explained this, he might say that his views generally were correctly reflected in the very practical speeches of Mr. SHAW, Mr. WATNEY, Mr. DRUCE, and Mr. EVE, which revealed a thorough knowledge of the question in its various bearings, and he concurred, generally, in what struck him as the very sound reasoning of Mr. HALL. But with the written criticisms of Mr. JESSE COLLINGS he must at once join issue,

as showing, in his humble opinion, a lamentable want of that practical knowledge and experience without which all that gentleman's good intentions for the alleviation of the labourers' state were of little worth.

A very sweeping criticism had been passed by Mr. Jesse Collings on his (Mr. Jeans') Paper. He remarked, "generally there is not much to be said further than that "his statements are mere assertions, and evidently come "from a very limited experience." Now that was a very easy way to pass over the matter, and although Mr. Collings went on to dilate at some length on the subject, he carefully refrained from attempting to refute his (Mr. Jeans') assertions.

Despite the very great interest Mr. Jesse Collings had shown in the subject, and, from the public position he had held, the great opportunities he had had of obtaining information, he challenged him to show that he had stated anything which he would not prove. He was anxious not to prolong his Paper to an undue length, or he might have quoted numerous instances from his own and others' experiences to prove his statements at the time.

As to allotments, he reiterated his assertion, which he had proved by Government statistics, and not from limited experience, that they had existed for a long period, and before the agitation by Mr. Chamberlain and Mr. Jesse Collings had commenced were held in such numbers that there were 350,000 more of them than the whole number of agricultural labourers. Mr. Hall went even further, and said that even from that estimate a large number had been omitted.

At a meeting at Trowbridge, in Wiltshire, on October 14th, 1885, Mr. Chamberlain, after referring to the condition of the agricultural labourer as

> "Landless, joyless, restless, hopeless,
> "Gasping still for bread and breath,
> "To their graves by trouble haunted,
> "Albion's helots toil till death,"

said, "The source of all the mischief lay in the manner by "which the labourers had been divorced from the soil, and "the remedy was to be found in restoring them to the land." Those were the words, and that was the language held at that time by Mr. CHAMBERLAIN and Mr. JESSE COLLINGS, and taken up and repeated by Mr. GLADSTONE, and which had the result of so working on the newly-elected Parliament as to displace from office the existing Ministry. His Paper, he should say, was written before the recent Act was passed, but could not then be accepted by the Council; but the language to which he had referred he set himself to disprove as absolutely unwarranted by the facts. A growing knowledge of those facts may have modified the language somewhat now.

He contended that there was little or no demand for more allotments—referring, of course, to agricultural communities,—and he quoted from Lord ONSLOW's little book, which he commended to Mr. JESSE COLLINGS' notice, in which he would find that the majority of 248 of the largest landowners in England stated to Lord ONSLOW that there was no more demand for allotments on their estates; and if it should arise they were prepared to meet it. This, then, was not "mere assertion" on his (Mr. JEANS') part, nor was it the result of limited experience.

The Corporation of Marlborough, of which he was a member, owned between 80 and 90 acres of land in close proximity to the town; 25 acres were let in 170 allotments, and the remainder was then occupied by some half-dozen tenants. With two other members of a committee appointed for the purpose he recently went over those holdings, and they reduced the rent from £4 per acre, or 6*d.* per pole, to £3 per acre, or 4½*d.* per pole, for the smaller holdings—the Corporation paying all outgoings; and they also considerably reduced the larger holdings. Those allotments had been in existence for very many years, and had been ample

to meet the demand. Until recently the small holdings (let in four-acre plots) let readily at high rents. Now there was great difficulty in obtaining tenants, and several lots were thrown together and let at low agricultural rents, to prevent the land going out of cultivation. Many of the smaller allotments had also to be let together, there being no demand for them separately.

In the immediate neighbourhood of Marlborough, the Marquis of Ailesbury owned about 40,000 acres of land comprised in some eight parishes; in those parishes there were 268 acres let out in 973 allotments, varying from 20 to 100 poles each, at fair agricultural rents. They had so existed for many years, and that system the owners of the estate had been ever ready to extend. At the present time it was difficult to obtain tenants, especially for those over 40 poles.

In four parishes, also near, where Sir Henry Meux owned a large property, there was ample provision for allotments; many were then unoccupied.

Again, the Earl of Pembroke, who owned a larger estate than Lord Ailesbury in South Wilts, and which comprised 18 parishes, let 295 acres of the best land at from 4*d.* to 5*d.* per pole, there being 1,051 tenants, 75 of whom had small holdings under 10 acres; in several of the parishes tenants could not then be found for all the allotments.

In Dorsetshire the Earl of Shaftesbury owned a large estate, and had 184 acres let in allotments at fair rents—mostly 40 poles, a few 80 poles,—and there was no demand for more.

In Hampshire, on the Marquis of Winchester's estate, allotments were amply provided. All those districts were well known to him, and he could verify his statements; and without going into further details, which time would not permit, he could from personal knowledge vouch for an

excess of allotment accommodation in numerous parishes in Wilts, Berks, Hants, Dorset, Somersetshire, and Kent. Some twelve years ago, in going over a parish of 4,000 acres near Bath (where, by the way, there are eight tithe-owners), to survey and reapportion the tithes, he was struck by the large number of allotments and small holdings—there being no less than 1,200 separate plots of land. Since the last meeting he wrote to one small owner, and his reply was remarkable. He said:—"About 20 years ago I let out in "allotments some 40 to 50 acres of pasture and arable land, "—the more distant not more than three-quarters of a mile "from the village—in lots of from three to four acres, and "that close to the village in lots of from 20 to 40 perches. "The whole let readily, and the rent was paid regularly; "but as time went on things began to change—the more "distant went out of cultivation, the rents got behind, and "the consequence was I had to take it in hand, and still "hold it; as regards those lots close to the village (some "close to the tenants' doors) they are often in hand. I have "then got them round when they have let for two or three "years, and at the end of that time the tenant would be in "arrear, and I had again to take it and repeat the process, "and resort to the county court to recover the rent. I "may mention a great number of the tenants were working "at the stone quarries, or were masons who earn from 20*s.* "to 30*s.* a week." He said the rents had been reduced 50 per cent., and adds:—"I am so thoroughly convinced that "allotments and small holdings will never pay until agri-"cultural produce realises better prices, that I should "recommend Mr. Jesse Collings to devise some scheme to "make them pay before he advocates a system which, in my "opinion, is sure to fail."

A letter had been lately written by Lord Radnor stating that in the neighbourhood of Folkestone he advertised allot-

ments to be let, but there had not been applications for nearly all offered.

Now, could Mr. Jesse Collings contradict his statement as to the demand for allotments? There might be exceptional cases in which it existed. He appealed to him to produce his evidence. He would rather take the evidence of a professional gentleman like Mr. Shaw, who said he did not think the demand for allotments in country districts was at all active at the present time; and these were the districts to which he referred, and which Mr. Jesse Collings proposed to benefit.

Then Mr. Jesse Collings had said that he and "almost "everyone who has had experience in the matter can con- "tradict this." In the absence of anything more definite, he must class this, in his own words, as "mere assertion;" and it appeared to him that if there were a few instances, which he contended would be exceptions to a general rule, some infinitely more real and wide-spread grievance was necessary to warrant the extravagant language, a very small portion of which he had quoted.

As to *small holdings*, Mr. Jesse Collings, he presumed, in the character of Mr. Chamberlain's *fidus Achates*, said his quotation regarding Ireland was "altogether outside the "question, and not applicable in any way to the state of "affairs in England." He contended that what was the fate of small holdings in Ireland would be their fate in England. For the purpose of argument he ingeniously confused allotments and small holdings. He said anything over 40 poles was a small holding, and, if arable, as a rule more than a man who had regular work could properly cultivate.

Mr. Jesse Collings' aim was to provide something more than that—in fact, what they all agreed upon calling "small holdings." He stated plainly in the letter they had heard that it was never intended or thought of that the small holder

should make a living out of his holding, but rather that he should "thereby get interest and profit" (whatever that might be), and he shrewdly added that interest and pleasure was to be by no means the least part of the value. He agreed with him so far, that certainly profit would not be the principal inducement; but "what a falling-off was there"! When they remembered Mr. CHAMBERLAIN's words at Trowbridge, which he had quoted, he doubted very much whether, if the labourer was to get little or no profit, he would care to undertake the thing for the sake of the interest and pleasure. He had seen too much of that with his employers, and, possibly, had been able to notice that there was not much "interest or pleasure" when a man was being ruined or was spending, for the sake of it, all he has earned in other ways. The agricultural labourer would consider whether it was going to pay; if not, he would have none of it. Did Mr. JESSE COLLINGS consider that anything beyond what would grow vegetables for the family was going to pay, or did he not? He thought he must find himself on the horns of a dilemma. Either he considered it would pay or he did not. If he considered it would pay, why did he, speaking of mortgages, say that "the profit of landowners had departed"? For if the profit of owning land had departed, how would it benefit those to whom he would transfer it, either as owners or occupiers? His argument that what was applicable in Ireland would be applicable here in England holds good. If it paid in a small degree, and was worth from 2*s.* to 4*s.* per week, why should not a man who could live on 10*s.* or 15*s.* per week, by taking a little more land and devoting his whole time to it, make a good subsistence?

If, on the other hand, he considered it would not pay beyond the quantity he named, why was he so anxious to persuade the labourers, as a class, that they were divorced

from the soil, and that their salvation lay in a complete restoration? Why was this language held? If no profits were attached to the occupation, why should those who were earning regular and certain wages be made participators in a ruined industry, and egged on to debt and misery such as was seen in Ireland? There seemed no bottom to such arguments.

Again, he said that mortgages had increased, and that the small holdings, in a district he referred to, were being absorbed in larger estates. Mr. Jesse Collings gave a reason for this in the past, but questioned its going on now. In the same sentence, however, he admitted it was not being done now, because the holdings were not worth buying. What a tissue of contrarieties!

How could there be any profit to small holdings when wheat made from 13*s.* to 16*s.* per sack; barley, 20*s.* to 30*s.* per quarter; oats, 10*s.* to 15*s.* per quarter; milk, 5*d.* per gallon; good butter, 10*d.* per lb.; fat pigs, 7*s.* 6*d.* a score, as we had recently seen? The merest tyro in rural matters must know that when things were in this state there was no chance for a small holder.

When that agitation was at its height a praiseworthy attempt was made by a company who wished to test the desirability of it, and who were fortunate enough to have an estate at Lamborne, in Berks, which cost £4,000, given to them by Lord Wantage. Mr. Jesse Collings knew it well. He had, no doubt, addressed the labourers there. That was quickly divided into "small holdings," and everything done to give it a fair chance. His firm was managing for the owner a large farm, in hand, adjoining, and he had, therefore, frequent opportunities of seeing the result. He was there last week, and, although the company might desire to make the best of the case, he knew the experiment

to be, to all intents and purposes, a failure, and most of the "small holders" had ample cause to regret their share in the transaction. He offered the freehold of some adjoining land to the company at a very low price, but they wisely declined to acquire any more.

In conclusion, he must say that he could only see one good in the promotion of small holdings, and that was foreshadowed by Mr. Rich when he asked, if the system largely prevailed, might it not be the means of a return to Protection? If that greatly-to-be-desired result should be so attained, then, indeed, Mr. Jesse Collings would earn the gratitude of all the classes interested in land, and the whole agricultural community would derive a lasting benefit from his action.

Mr. E. P. Squarey (Vice-President) said he would like to say a word with reference to Mr. Jeans' observations as to the small-holdings scheme at Lamborne. His attention had been recently called to the rental account, and he found that, although the larger tenants had asked for an abatement of rent, which the Directors of the Small Farms Company, of whom he was one, had thought it not unreasonable to concede, the majority of the small holders had paid their rents with exemplary punctuality, and had shown no desire to have them abated. Mr. Jeans had spoken of things having gone from bad to worse. To this he might reply that the land was out of cultivation for some few years before Lord Wantage bought it and presented it to the Company. He was hardly prepared to admit that the efforts of those who now occupied the estate had deteriorated the condition of the land. Indeed, it was far otherwise.

The President feared it was too late to attempt to sum

up the various points elicited in the two Papers and in the resulting discussion.

The subject of the Papers was allotments, but the discussion had deviated a little into the question of small holdings. Now, small holdings and allotments were totally distinct things, and the question of whether the Lamborne Estate paid or did not pay had nothing whatever to do with the subject of the interesting Papers with which they had been dealing.

He presumed that Members, generally, agreed that allotments were desirable if they could be got to benefit and be made at all profitable to those who were to hold them. If, as Mr. Driver had said, the provision of urban allotments would have the effect of weaning the artisan from the public-house and of giving him healthy occupation and amusement, it would be a most desirable state of things in the interests of society.

He did not think justice had been done, in the discussion of this question, to the part which the great hereditary owners of land had played for years past in supplying allotments to their labourers—not, as had been suggested by one gentleman, "because they could do it in a patronising sort of way," but because they felt that they were adding to the comfort and prosperity of those amongst whom they lived. Had the example they set in this respect been followed by other landowners throughout the country, there would have have been no necessity for legislation of the kind under discussion. But be that as it may, the Act had been passed, and the question now to be considered was how to utilise it to the best advantage. For his part, he doubted whether the Act would prove workable unless amended in some particulars. He referred more especially to the clauses relating to compulsory purchase, for there was no way that

he could see in which public bodies, such as boards of guardians, could borrow money at such a rate as to enable them to recoup themselves by letting allotments at any price by which they could be beneficially occupied by allotment-holders. There was the further difficulty, which must present itself in many cases, of the distances which would have to be traversed. If a man had to go a mile or a mile and a half to his allotment, its value to him would, clearly, be greatly diminished. Moreover, if an allotment was to be at all profitable, it must be occupied and farmed in a manner totally different from agricultural land. It must yield the maximum of produce in return for the personal labour of the occupier, and in order to get that maximum of produce it would be necessary to fertilise to the highest possible extent. Under the Act, an allotment-holder was able to put up pig-styes, but it was of no use to him to put up a pig-stye unless he were prepared to buy an amount of food far beyond what the allotment would grow, and it would be impossible for the occupier to find sufficient fertilisation for the purpose year by year.

In country towns (and he hoped the practice would be discontinued as far as possible) children and old people were sent out into the roads to scrape up the droppings of horses and other animals. In the rural districts again they could utilise their slops and the refuse that came from the houses, but in the neighbourhood of larger towns everything passed into the main sewer and went out to sea or into the rivers. Therefore there would, he thought, be great difficulty, first, in finding allotments so conveniently near to the dwellings of the people as to make it worth their while to hold them, and then in continuing the fertilisation necessary to secure that maximum produce without which they would be of doubtful benefit to the occupier. However, he trusted these difficulties

would be overcome, and if the mere fact of granting allotments had no other result than that of giving men occupation on the land, either in growing flowers or vegetables, in preference to resorting to the public-house, it would tend greatly to the welfare of the country, and do an enormous amount of general good. Personally, therefore, he wished the measure every success.

The Meeting then adjourned.

Paper 150.
No. 254.

NOTES ON WATER SUPPLY,

WITH SPECIAL REFERENCE TO VILLAGES AND COUNTRY MANSIONS.

By R. F. GRANTHAM (Associate).

Read at the Ordinary General Meeting of The Surveyors' Institution, *Monday, January 23rd*, 1888.

ROBERT COLLIER DRIVER (VICE-PRESIDENT) IN THE CHAIR.

The syllabus of subjects for the examinations held in this room sets forth the several points in connection with the supply of water upon which knowledge is expected.

Under the head of "Agricultural Chemistry," study is invited of the "composition and characters of good and "bad drinking waters, hard and soft water, and means of "softening hard water." Again, under the heads of "Farm Buildings" and "Geology," attention is drawn to "details "of water supply," and "water-bearing strata, flow of "underground water and artesian wells."

I propose, then, to offer some remarks on these points with some illustrations from actual practice, and to note the progress made under the Reservoirs Act, 1877, and the Public Health (Water) Act, 1878.

Rainfall supplies all water found in springs, rivers, or wells, and from which of these sources it shall be obtained for our use depends upon the configuration of the ground, the geological formation of the locality, and the require-

ments of populations. The rain falling on the earth's surface is partly absorbed, partly evaporated, and partly carried over the surface, and its presence in springs or wells is due to the more or less absorbent powers of the soils, or the geological formation on which it falls.

Referring to the geological strata, from the tertiary formation downwards, there is, approximately, a uniform decrease in the absorbent powers of the various rocks, as the following table shows :—

Classification of Strata, showing the observed Relative Power of Absorption.

	Proportion of Water absorbed by 100 parts of Stone, &c.
Garden soil	41·60
Plastic clay	19·56
Thanet sands, fine and slightly argillaceous	44·80
Woolwich sands, fine-grained quartzoze	41·60
Lower tertiary sandstone, pure quartzoze	29·60
Light green magnesian marl	27·99
Upper chalk (Wethered)	19·30
Do. (Delesse)	24·10
Chalk flint	0·13
Upper greensand, slightly argillaceous quartzoze,	48·00
Lower greensand, coarse and ferruginous	40·96
Do. do. very coarse	34·88
Limestone, Portland	5·30
Great oolite, Bath	31·20
Do. Ancaster	18·00
Do. Barnock	24·40
Inferior oolite freestone, Cheltenham	23·98
Do. limestone	12·18
Magnesian limestone, Bolsover	18·20
Do. do. Parkbrook	24·90

	Proportion of Water absorbed by 100 parts of Stone, &c.
Magnesian conglomerate, Clifton - -	16·33
Sandstone, permian, Mansfield - - -	15·10
Do. carboniferous, Craiglith - -	14·30
Limestone, carboniferous (Wethered), Clifton	11·20
Millstone grit, Bristol - - - -	0·93
Do. Sheffield - - - -	7·54
Dark coal shale - - - - -	2·85
Old red sandstone, Gloucestershire - -	11·60
Old red conglomerate - - - -	13·53
Devonian limestone - - - - -	0·08
Old red flags, Caithness - - - -	1·39
Silurian slate - - - - - -	0·19
Basalt - - - - - - -	0·33
Large-grained granite - - - -	0·37
Porphyritic trachyte - - - -	3·70
Granite (fine-grained) - - - -	0·12
Granite (hornblende) - - - -	0·06

Professor Prestwich, in his recent work on "Geology," calls attention to two conditions of the absorbent power of rocks: the one, when the strata are below the line of permanent saturation, which he prefers to call the water of imbibition, or the quarry water; the other, when the rock is above the line of saturation, or the water of saturation. According to his view, the water in a deep well in the chalk would represent the water of imbibition, or the quarry water; while the water maintained in the chalk by capillary attraction, above the level in the well, would be the water of saturation—chalk containing two gallons of water per cubic foot.

Many of the strata in the geological order contain great varieties of soils. For example, the lower greensand

formation contains upwards of sixty different beds of clay, sand, and stone. These alternations, where beds of clay underlie those of sand, cause water soaking through the sand to collect in quantities when stopped by the clay or by some fault, and it must either escape in springs or be stored underground until it overflows into the nearest lowest channel.

Commencing with the tertiary formation, the permeable Bagshot beds and the Thanet sands contain the softest kind of water, but the water in the shallow wells in the gravel on the London clay and in the Bagshot beds is, for the most part, highly polluted.

The chalk formation underneath is divided into the upper and lower chalk, the former containing large quantities of water which travels, more or less rapidly, through its crevices and fissures. The lower chalk, where consolidated by the pressure of the superincumbent strata, does not contain these fissures, so that often no water is found in it. Where the upper chalk meets the tertiary beds the water bursts out in springs—such as those which supply the River Wandle. The surface of the underground water, slowly travelling from the up-country, assumes an inclination towards its outlet into the river or sea at a rate which has been found to range between 10 and 40 feet per mile.

The upper greensand immediately under the chalk absorbs large quantities of water which finds its way to the impermeable gault clay, or blue slipper as it is locally termed, and issues therefrom in springs. The lower greensand comprises, as already stated, many varieties of clays and sands, some of the latter, however, being of a ferruginous nature, through which water passes more or less freely; and quantities sufficient for the supply of large towns have been drawn from wells and borings in it. Borings, however, at Kentish Town,

Harwich, and the well-known boring at Meux's Brewery, have proved that this formation is altogether absent in those localities.

Underlying these strata, the oolites comprising the great and inferior oolites and the Oxford and Kimmeridge clays contain an immense amount of the very best water.

Mr. De Rance, speaking of the valley of the Thames in his "Water Supply of England and Wales," classifies the subdivisions in these formations under two heads, viz., permeable and impermeable, the surfaces of which, in England and Wales, he calculated at 26,687 square miles of the former, and 21,000 square miles of the latter.

In the former are
- Portland rock,
- Sandy bed of forest marble,
- Cornbrash,
- Great oolite.

In the latter are
- Kimmeridge clay,
- Oxford clay,
- Forest marble,
- Fuller's earth,
- Lias.

He states that "a very large proportion of the rainfall "of the great oolite and Kelloway rock descends through "these formations to the fuller's earth, on which retentive "clay is accumulated the enormous quantity of water found "passing down the dip planes of the strata, until arrested "by faults, which cause a portion of it to issue in springs." Such water as has been obtained from the lias has been found to be excessively hard, and to contain a considerable amount of solid impurity.

Lower down is the trias formation, consisting of the Keuper marl and sandstone of the new red sandstone series, described by the Rivers Pollution Commissioners as one of

the best water-bearing strata in Great Britain. The rhoetic* beds and marls, where the upper gypsum bed has been penetrated, yield a good supply; but the great supply comes from the "Water-stones" at the base of the Keuper marl and from the sandstone. It should be observed that brine is met with in this formation. The South Staffordshire Waterworks, which supply an area extending over a length of about 40 miles between Stourbridge and Repton, and a breadth at Lichfield of 12 miles, obtained about 10,000,000 gallons daily from a tunnel driven into the sandstone; and we know that Liverpool has long derived part of its water supply from deep wells in this formation.

In the Permian rocks the magnesian limestone underlying the new red sandstone is not often resorted to for a deep well supply, and the water from its springs is hard. The sandstones and conglomerate below it, however, yield a large supply.

Below these are the coal measures and the millstone grit, the former containing a considerable quantity of water, which, however, is hard.

The water falling on the surface of the carboniferous or mountain limestone passes down through its crevices and fissures, but, as the rock is an impermeable one, it remains unfiltered from, and exposed to, any contamination met with on the surface.

In the old red sandstone good water can be obtained from deep wells.

From the surfaces of the older formations of the Silurian and Cambrian periods, the water flows freely, and so there is no storage.

The Rivers Pollution Commissioners,† in 1874, found that the water in very nearly all the shallow wells in the

* De Rance, on the Water Supply of England and Wales.

† Sixth Report of the Rivers Pollution Commissioners, 1874.

various formations I have described was highly polluted, and entirely unfit for domestic purposes. They point out, what is now a matter of common observation, the dangerous proximity of wells to cesspools and that wells, being generally deeper than cesspools, become the natural receptacles for polluted water from them.

On the other hand, spring waters from all sources are naturally good, but the dangers from pollution are many and various, so that the greatest care is required in tracing and ascertaining the source of springs. However high up in the water-shed and far removed from dwellings, where the land is cultivated there is still danger from manure used in adjoining fields. And in proposing to divert springs for domestic purposes, legal questions arise out of interference with riparian rights.

Leaving out of consideration the storage of large quantities of water derived from gathering grounds, for the supply of large towns, there is no source from which water can be derived with less chance of contamination than from deep wells in the water-bearing strata. It has been shown by Pasteur* that many of these waters are entirely destitute of organic life.

Qualities of Water.

The Pollution Commissioners classified the rocks yielding soft and hard water as follows :—

Those rocks from which soft water is generally to be expected are—

Igneous,
Metamorphic,
Cambrian,

* Min. Proceed. Inst. C.E., vol. lxxxv., page 212.

Silurian (non-calcareous),
Devonian (non-calcareous),
Millstone grit,
Non-calcareous rocks of the coal measures,
Lower greensand,
London and Oxford clay,
Bagshot beds,
Non-calcareous gravel.

Those which give out hard water are—

Calcareous Silurian,
Calcareous Devonian,
Mountain limestone,
Calcareous rocks of the coal measures,
New red sandstone,
Conglomerate sandstone.
Lias,
Oolite,
Upper greensand,
Chalk.

The chief chemical data, says Professor WANKLYN, sought when making an examination of water for sanitary purposes are the following: —

I.—Total solid residue.
II.—Hardness, temporary and permanent.
III.—Chlorine.
IV.—Nitrogen, existing as nitrates and nitrites.
V.—Ammonia and organic matter.
VI.—Metals.

He insists that water, to be of a sufficient degree of purity, should not contain more than ·08 parts of albumenoid ammonia in a million, or ·0056 grains in a gallon.*

* WANKLYN on Water Analysis.

Dr. Voelcker, in a lecture before the Royal Agricultural Society, alludes to the four essential qualities of water intended for household use, viz., absence of putrescent organic matter, absence of discoloration, softness, and coldness.

The hardness of water is due to the presence in it of salts of lime and magnesia, and it is tested by its power of dissolving soap. The degree of hardness is reckoned on Dr. Clark's scale by the number of grains of carbonate of lime in a gallon of water, the limestone rocks consequently yielding the hardest water. The hardness, however, is reduced by boiling, and is thus divided into two kinds, temporary and permanent. The scale of hardness adopted by the Rivers Pollution Commissioners is in parts per 100,000. Hard water is characterised by the presence of more than 7 degrees on Clark's scale (although the hardness would not be considered excessive under 12 degrees), while water containing less than 7 grains of carbonate of lime per gallon is soft. The saving in soap in using soft as compared with hard water is considerable, not to mention the deposit which hard water leaves in boilers, kettles, and pipes; while, on the other hand, the softest and most pure water will very rapidly oxidise the interior of pipes and fill them with rust. Soft water will also attack the surface of new lead pipe, but, a coating of vegetable matter being thus formed, the surface of the pipe is protected from further injury, and the use of lead for pipes is rendered innocuous.

Hardness may be reduced by boiling, by distillation, by carbonate of soda, and by the application of Dr. Clark's process. Besides these, there have been two adaptations of the Clark process, viz., the Porter-Clark and the Atkins processes. The principle of Dr. Clark's process consists in removing the carbonic acid from the water by the addition of milk of lime. The carbonate of lime is thus deprived of its solvent, an excess of lime is caused, and is then preci-

pitated. Great care is necessary in applying the process, so that there may be no excess of lime when the water is allowed to enter the supply pipes, otherwise the deposition will take place in the pipes and ultimately choke them.

By the Porter-Clark and the Atkins processes the space required for treatment is diminished, and the action is more rapidly carried on. The water is mixed with lime-water, and is then passed through filters which are mechanically cleansed by revolving brushes.

From the softening processes we pass on to the purification of water.

Sand filtration is one of the most efficacious and least costly methods of purifying water on a large scale. Other filtering media have been tried—for the most part, however, on a small scale—such as charcoal, carferal, spongy iron, and Spencer's magnetic oxide of iron, with good effect.

According to Dr. Percy Frankland,* whose experiments on the biological examination of water are well known, the removal and destruction of micro-organisms are facilitated by an enlarged storage capacity, a sufficient thickness of sand, a slow rate of filtration, and a frequent removal of the filtering medium.

It may be noted, in passing, that the average daily supply of the Thames Water Companies varies from 9·5 million gallons to 19·9 million gallons per day; the storage capacity of the reservoirs ranges from 64·5 million gallons to 140 million gallons; the rate of filtration varies from 1·5 gallons to 2·0 gallons per square foot per hour; and the thickness of fine sand from 2 ft. 6 in. to 4 ft. The mean temperature of the water supplied to London is 54 deg. Fahrenheit. The temperature of water in the chalk at the Godstone quarries, according to Mr. Baldwin Latham,

* Min. Proceed. Inst. C.E., vol. lxxxv.

was 47 deg. Fahrenheit, and of that flowing out of springs at Croydon 52 deg. Fahrenheit. The temperature of underground water has been observed to increase 1 deg. Fahrenheit for every 50 ft. in depth, but at great depths the increase is probably in a greater ratio.

Filtration through animal and vegetable charcoal removes matter in suspension in the water, and the former also deprives it of some of its organic matter, but the latter has very little effect in regard to organic matter. Both kinds lose some portion of their power after continuous use, and require cleansing. Carferal and spongy iron have both been found to be efficacious, not only in removing organic matter, but, in the case of the latter, in materially reducing its hardness.* It was used, in combination with gravel, with considerable advantage in the waterworks at Antwerp recently constructed by Messrs. Easton & Anderson, and, more lately, Mr. Anderson devised a plan by which agitation of the water with the spongy iron in revolving cylinders is kept up, with the result of a very rapidly purifying effect. Spencer's magnetic oxide of iron promotes the oxidation of organic matter and has been used on a large scale, as well as in domestic filters, in which it has given satisfactory results.

Quantity of Water.

The quantity required for towns has been variously estimated, but by a careful system of inspection, to prevent waste, 20 gallons per head per day should be sufficient for all purposes. The quantity required for cottages has been estimated by† various authorities at 2 and 2½ gallons per head per day; that for country mansions, after allowing for stables, washing carriages, and for that which is most essential

* Min. Proceed. Inst. C.E., vols. lxxii. & lxxxi.
† Trans. Inst. Surveyors, vol. xiii., p. 151.

to them—viz., fire service, should not be less than 20 gallons per head per day, with a minimum of two months' storage. The quantity of available rainfall from the roofs of cottages was estimated by the same authorities at about 4,500 gallons per cottage per annum.

As to the quantity of water to be obtained from springs and streams, numerous observations of the volume in rivers, and of the proportion of rainfall absorbed and returned to the surface, either naturally or by under-drainage, enable us to form an approximate estimate of the total amount. Thus the observations of Mr. Beardmore of the rainfall in the valleys of the Thames and the Lee, and the measurements of their respective discharges during 19 years, show an average proportion of the flow to the rainfall to be, ·30 or nearly $\frac{1}{3}$, in the Thames, and ·25, or $\frac{1}{4}$, in the Lee. The experiments of Mr. Chas. Greaves and Sir J. B. Lawes and Dr. Gilbert show 26 per cent. and 33 per cent., or $\frac{1}{4}$ and $\frac{1}{3}$, respectively as the amount of percolation from drains at various depths in loamy clay soils, and Mr. Greaves gives 83·3 per cent. as the quantity percolating through sand.

Farms might be plentifully supplied from under-drains where, as is frequently the case, they tap springs and the discharge is perennial. Where, however, the drains are laid in stiff retentive soils they fail to yield water when it is most required, and must be supplemented by large storage reservoirs.

The various methods of raising water are hydraulic rams, pumps worked by waterwheels, by turbines, steam-engines, gas-engines, hot-air-engines, and by windmills. Where there is sufficient quantity and fall of water, hydraulic rams and waterwheels are, of course, the least expensive. Wind-power with ample storage has much to recommend it, and is largely used in America. Mr. C. J. Mann* mentioned an instance

* Trans. Surveyors' Instn., vol. xv., p. 121.

of a windmill and pump having been erected to supply some farm-buildings at a cost of £70. The adoption of either of these methods will, of course, depend upon the circumstances of the locality, but the use of gas, hot air, or steam will probably be limited to places where they can at the same time be utilised for other purposes, or where a large quantity of water is required. Generally speaking, gas-engines, where gas can be obtained, and RIDER'S hot-air-engine are more suitable for small powers than the ordinary steam-engine and boiler, and although the first cost of those engines is higher, there is greater economy in the space and the attendance they require.

I will now briefly allude to some works undertaken for the purpose of supplying farms, villages, and country mansions.

In 1881 Mr. LUCAS quoted some cases of water supply to villages, showing that the cost per house per week amounted to less than the limits prescribed by the Public Health (Water) Act of 1878, the highest being $1\frac{1}{2}d.$ and the lowest $\frac{1}{2}d.$ per house per week. Mr. S. H. TERRY,* one of the inspectors to the Local Government Board, has recently described several cases of rural water supply, in which water has been conducted to villages for the limit of $2d.$ and $3d.$ per house per week—viz., two by gravitation for $1\frac{1}{2}d.$; two by pumping, one of which was to supply a population of 11,000, and another in which a windmill is used as the power, and in which, when the works are completed, it is expected that the cost will be within the limit. In one of the cases mentioned by Mr. TERRY of a village of 114 houses, the works, which were executed by the sanitary authority, cost £700, to be repaid by the house-owner, the annual instalment of principal and interest, at $3\frac{1}{2}$ per cent. for a term of 30 years, amounting to

* Paper read at the Congress of the Sanitary Institute at Bolton, 1887.

£5 8*s.* 9*d.* per cent. A leading article in the *Field* of September 24th last stated that the annual rate of repayment, for a term not exceeding 31 years, of the cost of works done under the Reservoirs Act of 1877, through one of the drainage companies, would amount to £5 13*s.* 2*d.*, the rate of interest in this case being 4 per cent., the advantages being that the landowner can independently, and probably more promptly than the rural sanitary authority, initiate and construct his own works for the supply of dwellings on his estate.

In a case of gravitation within my own experience, the source of water was a spring on the side of a hill in the old red sandstone formation, in Herefordshire, whence the water was collected in a small tank 6 feet by 4 feet by 3 feet deep, and conducted a distance of 660 yards, through a 2-inch cast-iron pipe coated with Dr. Angus Smith's composition, to a village containing about 20 cottages and 2 farms. The service-pipes comprised 153 yards of 1-inch galvanised wrought iron, with screw-down stop-cocks. The total cost was £136 9*s.* 11*d.*, equal to a charge of very nearly 1½*d.* per week per house. This work was done under a loan sanctioned by the Inclosure (now the Land) Commissioners.

As an illustration of details it may be useful to describe a case involving pumping so as to provide storage in case of fire for Claverton Manor, near Bath. The house had not been previously adequately supplied with water, the only means being the pumping of water from a well at the back of the house, without any provision in case of fire. Several springs were found issuing from high ground in the oolite formation behind the house. The water from these was collected and conducted by 3-inch pipes to an hydraulic ram which pumps it up through 1½-inch pipes to a reservoir containing 31,250 gallons, built of rubble stone, and covered with flagstones, placed at such an elevation that the top water is 19 feet

above the highest part of the roof of the house, the total lift being 100 feet. There were about 20 people in the house, so that, at the rate of 20 gallons per head per day, there was storage for 78 days. Three-inch pipes were laid from the reservoir to the house and stables, with hydrants fixed outside at suitable points for attaching hose and firecocks inside on the upright mains, as shown in the diagram.* The cost of these works amounted to £672 inclusive.

The next illustration is one of a similar character. Here the water was derived from the Bagshot sands, and was very soft and pure in quality. It was supplied to Somerley Mansion, near Ringwood, Hants, with special provision in case of fire. A well some distance from the house received the water, and near the well a saw-mill was erected, containing a steam-engine of 12-h.p., arranged to work a 3-throw pump, as well as to drive a circular saw. The water is pumped through a 3-inch rising main, a distance of 1,460 yards. Here it joins a 6-inch main, 2,200 yards long, through which it was conducted to a reservoir on a heath, the total lift being 120 feet, the top level of the water in it being 17 feet above the ridge of the roof of the mansion. From the point where the two mains meet a 6-inch pipe was laid to the mansion for a distance of about 400 yards, the total distance from the reservoir to the mansion being about 1½ miles.

The reservoir, an open one, was partly excavated, partly embanked. Its sides and bottom were lined with concrete, the ballast for which was supplied from the excavation. The depth of water in the reservoir, when full, is 10 feet, the area at top water-level 60 feet square, the capacity when full 150,000 gallons. The height of the water in the reservoir in indicated in the engine-house by a pressure-gauge.

The flower and kitchen gardens, the stables and laundry,

* This diagram will be found after p. 162.

as well as the house itself, were all supplied. Hydrants were fixed at suitable points outside the house and buildings, and mains were carried up inside, to which firecocks were attached at various points on every floor, so that the various lengths of hose could be taken into every room in the house. The whole cost of the pipes and reservoir and pumps, exclusive of the engine, was under £2,000.

For the purpose of supplying the new hotel at Bembridge, in the Isle of Wight, we bored an Artesian well* to a depth of 264 feet from the surface, through the Bembridge, Osborne, and Headon beds, consisting of clays, marls, and sands, to the upper Bagshot sands, from which a quantity of water, equal to 2,200 gallons in 12 hours, was pumped. The water rose to within 24 feet 6 inches of the surface of the ground, or the level of low-water neap tides. A well 8 feet in internal diameter was then sunk and made water-tight 70 feet deep, and double-barrel pumps were fixed on iron girders in the well 15 feet below the surface of the ground, and worked at first by hand, but subsequently by a Rider's hot-air engine, by which the water is pumped up to large cisterns placed at the top of the hotel, the highest being 23 feet above the ground-level at the well, and the total minimum lift being 47 feet 6 inches.

An economical method of raising water from boreholes is by placing the pump at the bottom, so that the supply may be drawn upon to the lowest depth without the cost of sinking a deep well. Great care is necessary in keeping the borepipe perfectly vertical; and the pump and valve must be so arranged as to be capable of being withdrawn when required. This method has frequently of late been put into practice; but, of course, the pump and valve cannot be repaired or even inspected without being raised entirely out of the borehole.

* A section of this boring will be found after p. 162.

I now proceed to record briefly the work done under the two Acts of Parliament which apply particularly to the supply of water in rural districts, viz., the Reservoirs Act, 1877, and the Public Health (Water) Act, 1878.

The Reservoirs Act, it will be remembered, enables a landowner to construct works on his estate, to purchase any water-rights, to enter into any contract with any authority, water company, manufacturer, or other person to supply water either on or outside his own estate, and to charge the cost for a term of years, subject to the approval of the Land Commissioners, provided he can show that the yearly revenue to be derived therefrom will exceed the annual amount to be charged on the estate.

This Act thus enables a landowner to obtain supplies of water from his estate for other purposes than those purely agricultural, to which, under the Land Improvement Act, 1864, he was limited. But there has been no case in which any landowner has applied direct to the Land Commissioners for the exercise of its powers, though there have been several instances in which applications for loans have been made through the land improvement and drainage companies, in which the powers of the Act have been resorted to in conjunction with applications for loans for other purposes. The largest of these is that of a loan of £8,000, from one of the companies, sanctioned by the Land Commissioners, for the purpose of supplying water obtained from the estate to Bexhill, in Sussex—a place in process of development as a seaside resort. This case seems to me to be a very suggestive one to those owners on whose estates supplies of water can be found, and who contemplate disposing of any portion of their estates as building land.

In the able Paper, before referred to, read by Mr. Lucas on "Rural Water Supply," he pointed out what he conceived

to be some of the difficulties in the sections of the Public Health (Water) Act. Since the passing of that Act* the Local Government Board has sanctioned an expenditure in rural sanitary districts, up to the end of last year, of £426,423, an average of £53,300 per annum, but the larger part of that sum has been applied to cases which ordinarily come under the provisions of the Public Health Act, 1875. Appeals have been made to the Board under the sections of the Act of 1878, viz., under the 3rd, 4th, 8th, and 11th, and the 62nd section of the Act of 1875, as follows:—

No. of Section.	No. of Appeals.
3	5
4	4
8 (1878) 62 (1875)	66
11	8

By Section 3 it becomes the duty of a rural sanitary authority, on the report of their inspector of nuisances or their medical officer of health, in the case of any house not having within a reasonable distance an available supply of wholesome water, to require the owner to provide such supply, when this can be done at a cost within the limit prescribed by the section.

Five cases under this section, between 1879-1886 inclusive, have been referred to the Local Government Board. In one case the Board determined that the highest limit prescribed by the Act would apply. In another case the Board cancelled the requirement of the rural sanitary authority because the house could not, in its opinion, be supplied at a reasonable cost. Two other applications were not confirmed owing to informalities, and in the fifth the authority were informed that it should provide a public supply.

By Section 4 the owner is empowered to object to such requirement within a certain time, and on specified grounds.

* Annual Reports of the Local Government Board.

The appeals under this section have been few. In one, the requirement of the authority was confirmed by the Local Government Board; in another, the authority was informed that it should provide a public supply, and in two other cases the appeals were allowed because a sufficient supply of wholesome water could not be supplied at reasonable cost.

Section 62 of the Public Health Act of 1875 enables a sanitary authority to apply to the Local Government Board, where no local Act is in force authorising a water-rate, to determine what is the reasonable cost at which a proper supply of water may be required to be furnished to houses which are without one; and Section 8 of the Act of 1878 empowers the Board to fix a general scale of charges for the whole or any part of the district of the authority. This section has been more largely resorted to than any other, 66 such scales, some in urban and some in rural districts, having been fixed by the Local Government Board during the past eight years.

Under Section 11, the Local Government Board is empowered to invest an urban sanitary authority with all or any of the powers and duties which are given by the Act to a rural sanitary authority.

There have been, in all, eight cases in which urban districts have been invested with the various powers and duties conferred upon a rural sanitary authority by Sections 6, 7, and 9. These sections provide that no house shall be erected or rebuilt, unless a certificate from the authority has been obtained, stating that a supply of wholesome water is within reasonable distance of the house; that the authority shall take proper steps to ascertain the condition of the water supply, and make inspections; and that they may recover rents or rates from owners or occupiers of dwelling-houses within 200 feet of any stand-pipe.

The powers of the Public Health (Water) Act do not

appear to have been extensively employed in promoting works for the supply of villages and rural districts. One cause of this, Mr. S. H. Terry points out, may arise partly from the difficulty in the application of Sub-section 5, Section 3, in which, in the event of owners of two or more houses failing to comply with the notice of the requirement served on them, power is given to the authority, under certain conditions, to execute the works for the joint supply of the houses, and it may also be due partly to local opposition to concerted action.

It does not appear, then, that either the Reservoirs Act or the Public Health (Water) Act has been very widely appreciated, if one may judge by the number of applications to the Land Commissioners under the former, and the number of appeals to the Local Government Board under the latter; but, as I have shown, a considerable sum of money has, during the past eight years, been granted to rural authorities for the purposes of waterworks.

The medical officers of health and the inspectors of nuisances are, however, generally active in inquiring into, and reporting upon, cases of nuisance and of insufficient and bad water supply; but their efforts are controlled, and some times defeated, by the authorities themselves.

The medical officer of health of a large and well-known district in the south of England informs me that his own "authority" has no disposition to carry out the provisions of either the Public Health Act or the Public Health (Water) Act. He has had occasion to refuse to sign certificates for new houses where the supply was insufficient, but the authority overcame the difficulty by ordering the inspector of nuisances to sign them. He also complains of a difficulty in closing wells, as the magistrates require not only an analysis of the water, but the presence of the analyst, who has, probably, to be brought from London.

He concludes his remarks by saying that our sanitary legislation fails because it is permissive.

On a large estate with which I am acquainted, about 50 miles from London, I am told that the officers of the sanitary authority are very keen in finding out any defects in the water supply to the different farms and villages, as they know that an application to the landowner will always receive attention, and the defects will be at once remedied; but they are not so careful to press those who show themselves unwilling to comply with their requirements.

In another district I have heard of, in Somersetshire, it appears that the medical officer rules with much success. He makes no complaint except upon unmistakeable evidence of defect and neglect. He then follows the cases up, and will not leave them until they are remedied. Sanitary matters, as I am informed, are well regulated in that district.

It is a matter for discussion whether any extension of the powers in these Acts is required, or whether the creation of watershed boards, as suggested by Mr. Lucas, is needed to meet the exigencies of such a drought as we had last summer. Watershed or rivers conservancy boards, formed for the purpose of dealing with the river-beds and watercourses might, perhaps, be entrusted with powers for the construction of storage-reservoirs and similar works as provision against long-continued droughts.

Many difficulties, no doubt, sometimes arise from want of unanimity amongst the rural sanitary authorities and their officers, and sometimes from an unwillingness to incur expense or to proceed against their neighbours.

In conclusion, I wish to express my thanks to those who have kindly afforded me information and assistance in the preparation of this Paper.

APPENDIX.

Herefordshire Water Supply.

	£	s.	d.
The cost of excavating the ground for the pipes, 810 yards in length, and the construction of the small tank referred to was . .	18	10	0
The cost of providing, laying, and jointing the 2-inch cast-iron main, 660 yards in length, was	90	1	3
The cost of providing, laying, and jointing the 1-inch wrought-iron service pipes, 150 yards in length, with bends and 2 gun-metal stop-cocks, was . . .	23	0	0
Additional sluice-valve and other sundries .	4	18	8
Total cost . .	£136	9	11

The Attorney-General (Sir Richard Webster, Q.C., M.P., Associate of Council) said that it gave him great pleasure to propose a vote of thanks to Mr. Grantham, who had an hereditary title to speak with authority on this question, and it must be very satisfactory to his father, Mr. R. B. Grantham (whom he was glad to see present), to listen to a Paper by his son containing so much valuable information. Having fulfilled the agreeable duty of proposing the vote of thanks, he would, with the permission of the Meeting, indicate certain points which seemed to him, as a layman, well worthy of consideration, and on which he hoped valuable opinions would be elicited from those present. He spoke principally from the point of view of a water-consumer, that is, as one who had had to consider how to supply his own house with water, and who had also had to do with supplying cottages, farm-buildings, and other buildings of the kind.

If he had any fault to find with this Paper, it was that there was a good deal too much in it, for it seemed to him that it referred to a number of topics which might have formed the subjects for far more elaborate discussion; but he trusted it might be made a platform upon which many observations of practical value might be made. He would briefly refer to one or two points of the kind which occurred to him.

The author had alluded, in the early part of his Paper, to water analysis. He (the Attorney-General) thought that it was high time that some Society—and he did not know why The Surveyors' Institution should not take the lead in the matter—should issue to the consumer some practical guide enabling him to understand what the quality of the water was that he was called upon to drink. He had had several times to get water analysed, and had received alarming-looking reports from the analysts—subdivided in a variety of ways; but he thought if some competent

authority would indicate to the consumer, on the lines of Mr. GRANTHAM'S Paper or on some other lines, what he ought to look for in water as absolutely deleterious, and what, though objectionable, as not absolutely deleterious to health, a great benefit to the public would accrue. Now, he made this observation with some point because he noticed that Mr. GRANTHAM had referred to what was commonly called the "albumenoid test." He had heard, in the course of work he had been engaged in, the most experienced chemists say that the albumenoid of ammonia test was untrustworthy, and that the presence of albumenoid ammonia in the water was not necessarily due to sewage or any other noxious impurity. He did not propose to enter into that controversy, but he desired to indicate to the Institution that if a table, which was sketched out in its main outlines in Mr. GRANTHAM'S Paper, could in some way be authoritatively published in plain language, so that anyone who got an analysis might know what was dangerous in the analysis supplied to him, there would be a great public benefit conferred on those who had to do with water-consumption.

Another matter to which he would refer was the quantity of water supplied per head. He had not made experiments or collected statistics with regard to cottage supply, but he should have thought that, even for this purpose, 2½ or 3 gallons was a very small quantity per head. But what most surprised him was Mr. GRANTHAM'S estimate of what constituted a sufficient ordinary domestic supply. He rather thought (and notably from the researches of Mr. HAWKSLEY) that about 20, and even as high as 30 gallons per head had of late years been considered necessary, and he (the ATTORNEY-GENERAL) did not think one could look to a diminishing quantity per head, because within the last few years the great advantages from a health point of view of the use of a large quantity of water had been thoroughly recognised.

Certainly, in the case of houses with stables and large gardens, an allowance of 20 gallons per head would be quite insufficient. He hoped this subject would be referred to by other speakers.

He would also be glad if some Members would, through the "Transactions" of the Institution, furnish some practical information as to the best kind of machinery to employ for getting water to the tops of houses in country districts. He wondered that Mr. GRANTHAM did not refer to turbines. A hydraulic ram was, no doubt, very suitable where there was a large volume of water to be dealt with, but for domestic purposes a turbine was a most valuable instrument, and he hoped that some practical information with respect to it would be elicited in the course of the discussion. An interesting fact had come under his notice lately, showing with what remarkable simplicity power could be transmitted long distances from its source by means of electric motors. Mr. McCLEAN, the son of the eminent engineer, was now pumping water at Tunbridge Wells from a depth of 170 feet to the top of his house, which was 60 feet high—a total lift of 230 feet. In two hours he pumped up 2,000 gallons of water at an expense of a very few shillings, by means of a simple gas-engine and an electric motor. There were cases in which it was necessary to pump the water a few hundred yards from the source of power, and in these cases an electric motor would be of the utmost value, the loss of power being very small in the process of transmission. He hoped this would not be lost sight of.

He would be glad if some data could be appended to the Paper showing how the $1\frac{1}{2}d.$ or $2d.$ per head was arrived at. In one case Mr. GRANTHAM gave some figures relating to a public body; but what he would like to know was what quantity of water could be supplied at that scale, also how much was for piping, how much for works at the spring, and how much for mere distribution. Time would not permit

him to enter into the large subject of the duties of local authorities, and many other points referred to in the last two or three pages of Mr. GRANTHAM's Paper, and which by themselves would afford material for a whole evening's discussion. The questions of the purity of water, the sources of supply, the amount required, the mode of supplying it, and the question of filtration as applied to houses, and especially to cottages and farm-buildings, had all been most admirably treated by Mr. GRANTHAM, and the great variety of the suggestions he had made (evidently after careful consideration) should form the foundation for a valuable discussion.

Mr. J. BINFIELD BIRD (Fellow) had much pleasure in seconding the vote of thanks. He happened, in the course of his practice, to have had a great deal to do with questions of water supply all over the kingdom. He knew of one instance of 20 cottages on a hillside, at the top of which there was a splendid supply of water which ran into a stream. The landowner kindly allowed the board of guardians, of which he was a member, to make a well 8 ft. deep and 4 ft. wide, in which they laid a pipe to supply the cottages, the overflow running down the stream as before. The cost of the pipe to supply the 20 cottages was exactly £100, and for this outlay they obtained a supply of water amounting to 30 gallons each, besides three large stand-pipes which the cottagers could use for watering their gardens, or for any other considerable purpose. There was no waste, and the arrangement answered admirably. But at a place 15 miles away the Public Health Act was found to work most oppressively. Fifteen or 20 cottages required water, the wells being contaminated like most cottage wells, and it was sought to lop off certain districts of the parish, and im-

pose very heavy taxation for the purpose upon farmers and others in the district who had no interest whatever in the cottages. He estimated the cost of supplying those cottages with water at something like £700, and it was much to be desired that some cheaper method of doing it should be suggested, an ample supply of good water being a prime necessity. In another instance which he knew of, a whole terrace of houses ran short of water owing to the excessive drought of last summer. The rains came, and the cesspools got full and overflowed into the wells, and there were 17 deaths from diphtheria in one month.

He had found nothing answer better for pumping water to private houses than the hot-air engine. He had one in use in the mansion of a gentleman for whom he was concerned and which answered perfectly. The gardener lit the fire at six o'clock in the morning, putting the cinders and refuse on it, and simply turning a little wheel when he went out to breakfast. In the course of a very short time there were 1,900 gallons of water in the cisterns at the top of the house, the work of pumping being effected without danger or expense of any kind beyond the original cost of construction. The apparatus had been working for 10 years, and he did not think it had cost 10*s.* a year to maintain it. He thought the time had arrived when the question should be thoroughly gone into, especially in regard to the cottages of the poor.

Professor Henry Robinson (Fellow) had not had the pleasure of hearing the whole of the Paper, and, as the Attorney-General had said, it travelled over such a wide range, both from an engineering and a social point of view, that it was very difficult to deal with it without some previous consideration.

He could record a number of cases in his own practice

as to water supply both to small and large towns; but he apprehended, from the title of the Paper, that its object was rather to elicit broad and general views as to the best method of supplying single houses or small communities.

In speaking of the volume per head—whether 20 gallons or 30 gallons or 12½ gallons—it was necessary to bear in mind the distinction between a single mansion, with, perhaps, 30 or 40 persons in it, and a large town containing some thousands of inhabitants. Very great misapprehension would arise if those who were in the habit of supplying large towns were to apply to small places the experience they gained with immense volumes of water. For a large town, 30 gallons a head would be very far in excess of anything which was estimated for nowadays. When proper regulations were in force to prevent waste, 15 or 20 gallons per head would be the most that would be allowed; but in the case of small communities (such as he could mention) and single houses, there was a larger consumption, due to the surrounding gardens and stables.

The question of chemical analysis was familiar enough to those who had to advise in these matters, and he must compliment the author on the amount of research he had exhibited in dealing with it. He did not propose to refer to it himself, but as regards the softening of water he might mention that he had been called upon, some three or four years ago, to advise the authorities of a large public school as to the water supply to their establishment, which was drawn from the chalk, and was exceedingly hard. There were several ways proposed for dealing with the difficulty. One was to construct large tanks to collect the rain-water; but he advised them to soften the water artificially, and, on going into figures, he came to the conclusion that the cost of the softening process would be amply repaid by the saving effected in various household expenses. Though he did not

commit himself to actual figures, the result fully confirmed his anticipations. The water was softened artificially. The cost of doing so was, he believed, speaking from memory, about £1,000, and, taking that at 4 per cent., it was found that the saving in soap, and other articles of consumption in the school, paid the interest on the capital outlay, to say nothing of the comfort and convenience to the inmates owing to the improved quality of the water for personal washing and the saving of wear and tear in washing clothes. These matters were singly insignificant, but taken together represented a great financial saving and a vast addition to comfort.

Mr. J. L. Pattisson (Fellow) desired to call attention to the fact that there was no general water map of the kingdom showing the underground water. He thought that such a map would be an immense gain to all dealing with the water-supply question in the country, and ought not to be difficult to make with approximate accuracy. The Geological Survey Office, probably, had already sufficient data for the purpose, to say nothing of the assistance which could be given by the Fellows of the Institution from their own local experience. He might instance the recent drift maps of the Geological Survey, produced and published for the benefit of the agriculturists (he believed at the suggestion of the Duke of Richmond, when President of the Committee of Inquiry on Agriculture), from data already in the hands of the Survey Office. He (Mr. Pattisson) hoped that the Council of the Institution might see their way to use their influence in obtaining similar maps showing the water to be found in any district within workable depths.

Mr. C. J. Mann (Fellow) said that had it been found possible to adjourn the discussion to the next Meeting, he

would have been glad of the opportunity of dealing with several points in the Paper. As he understood from the CHAIRMAN that other arrangements rendered this impossible, he would confine himself to a very few words.

He noticed that the Paper contained no allusion to a rain-water supply for country mansions. There were situations in which it would be difficult to obtain a supply of good water from any other source but the rainfall, and then it became necessary to resort to the storage system. He happened to have had a case within his own experience where a thoroughly sufficient supply of water (and a large and adequate reserve) was derived from no other source; all the needs of a large country mansion, of its garden, stables, fire supply, outbuildings, and farm-buildings, being most amply provided for by means of a system of underground tanks in which the rain-water was stored. He hoped that Mr. GRANTHAM would furnish some practical information on this point in the course of his reply.

Mr. GRANTHAM, in reply, thanked the Meeting for the vote of thanks which had been proposed, and the ATTORNEY-GENERAL and others for the kind remarks which they had made on his Paper.

It had been said that there was too much in the Paper. He was well aware that it was a comprehensive one. At the same time he felt that his department of the subject alone would be so entirely confined to engineering that it would, perhaps, scarcely afford sufficient ground for discussion before this Institution, and for that reason he did not enter into all the details of engineering matters that would have been possible had he felt, looking to the scheme of the Paper, that the subject would have been so interesting to all the Members of the Institution.

With regard to the albumenoid ammonia test he believed

that it was originated by Professor WANKLYN, and he quoted from his book in giving the minimum amount of albumenoid ammonia that Professor WANKLYN insisted on as a measure of the purity of water, and relied on his authority. He believed it was a high degree of purity in which only ·08 parts in a million of albumenoid ammonia could be found; but whatever view might be taken of it, it was at least an indication from which a judgment of the quality could be formed, so that, if a much larger amount than ·08 parts were found in any sample of water, it would be known that suspicious impurities existed to a greater or less extent whether they were due to peaty matter or to sewage contamination.

As shown in the Paper, he agreed with Professor ROBINSON in thinking that with the present known system of inspection, as applied in Liverpool for instance, 20 gallons per head should be sufficient for large towns: 30 and 40 gallons a head, which they heard of in some towns, was admitted to be an excessive quantity, and might be reduced by careful inspection. He believed that Mr. DEACON, in Liverpool, had succeeded in keeping it within that limit, and he understood that in Manchester it was even less. With regard to the quantity for mansions, it was found, in the case referred to, in Hampshire, that 20 gallons per head was sufficient; and it must be borne in mind that 20 gallons per head was a much larger quantity than was, as a rule, actually used for domestic purposes in the house itself. In fact, Mr. BAILEY DENTON had told him that in his own house only 5 gallons per head were used, so that 20 gallons seemed to him to be a fairly sufficient quantity for that class of dwelling.

He was much obliged to the ATTORNEY-GENERAL for calling attention to the omission of any mention of turbines. They should have been included in the list with other means of pumping up water. He was not in a position to say much

with regard to electric motors for transmitting power to a distance, as he had no experience on the subject. He thought electricity would be more generally applied to motive-power sooner or later, and that we should see motors of the kind mentioned by the Attorney-General at work where no one thought of using them at present. With regard to the details of cost of water supply to cottages for 1½*d.* per house per week, he thought Mr. Lucas's Paper gave details, although it did not contain those of the cost of pipes and tanks; but if he (Mr. Grantham) had had time he should have given the details of pipes and sizes in each case. He had given some details in his Paper relating to the case in Herefordshire where the water was collected in a tank and conducted through a 2-inch cast-iron pipe. He had the details of cost, and he would take care to add them to the Paper, and give those particulars.* With regard to Mr. Bird's observations as to the cost of supply, in a case within his experience, it was analogous to the case mentioned in the Paper, and might be taken as an example of what might be done for that number of houses.

The case of a school with 700 inmates, referred to by Professor Robinson, where the water was softened with the result that the interest on the capital expended was entirely saved, seemed to him a very interesting example. As Professor Robinson had said, a Paper might be written on the softening process alone, and so there were several subjects in the Paper upon each of which long Papers might be written. He would remind the Meeting that his Paper only professed to be mere "Notes on Water Supply," and his object had been rather to confine himself to general outlines of the subjects mentioned in the syllabus.

A Member (Mr. Pattisson) had mentioned that there was no water map upon which the particulars such as springs

* See Appendix, p. 150.

and depths of water in wells, &c., could be shown. If he recollected rightly, Mr. Lucas, in his Paper seven or eight years ago, suggested that there should be such a survey, but the question was who was to pay for or provide it. There were no funds available for the purpose, and the Government, apparently, had not taken it up, and it was therefore left to individuals to do so if they chose; but Mr. Pattisson was, no doubt, aware that a surface geology map was now being made by the Geological Survey authorities.

Then, Mr. Mann asked whether a rain-water supply would not be suitable for mansions. He (Mr. Grantham) was afraid that it would not be found to answer for all country mansions. He knew of a case in Lancashire where the vicar of a parish collected all the water used in the house from his roofs into three large tanks. He saw him the other day, and he said that he was careful to take the water from the middle of the depth of the tank, not from the extreme bottom, on account of the dirt deposited there, nor from too near the top, on account of the dirty matter floating on the surface.

The district was in the mountain or carboniferous limestone, and the supply ran rather short last summer, and the vicar intended to supplement the tanks by another one, and, possibly, in time by further additions. Such a system, he thought, would hardly answer the purposes of large mansions. In the first place, it was doubtful whether the water would always be of sufficient purity, and, in the next place, for dry times, very large reservoir-power would be required. He thought he had now replied to all the remarks that had been made, and he begged to thank the Meeting for listening to him with so much patience.

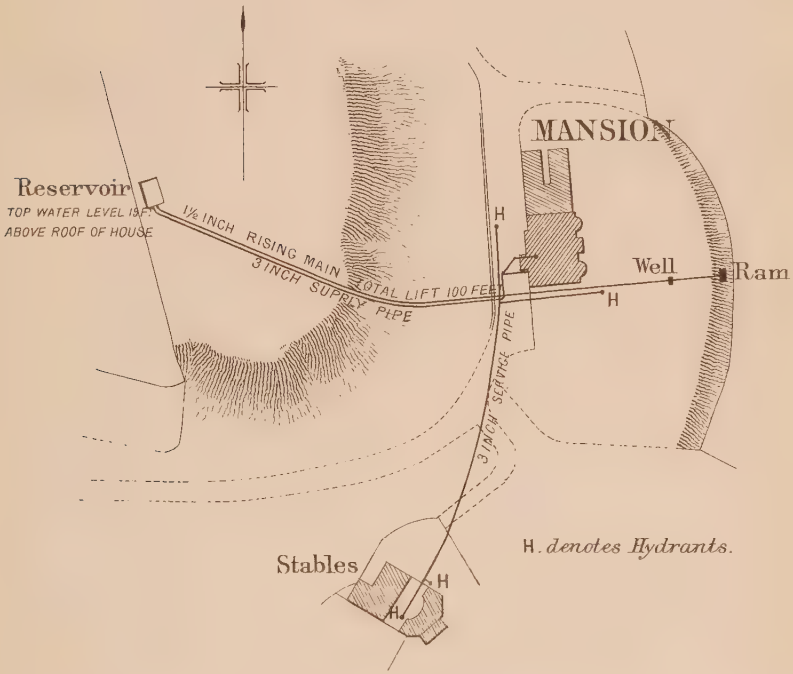
The Chairman regretted that it was not possible to adjourn the discussion to the next Meeting. The Institution

was much indebted to Mr. GRANTHAM, Jun., for his very able Paper. The question with which it dealt was a large and wide one, and would afford scope for "Professional Notes" from those Members who were fully conversant with the subject, and in this way he thought the Paper would attain its purpose better than by general discussion. When he was a boy people did not trouble themselves very much about the quality of the water they drank, so long as it passed through the filter which each house contained; but now that the large towns and cities had become so crowded, and each had its system of drainage, it was necessary to carefully study the question of water supply.

The vote of thanks having been put and carried unanimously, the Meeting concluded.

To illustrate Mr. R. F. Grantham's Paper on Water Supply to Villages & Country Mansions.

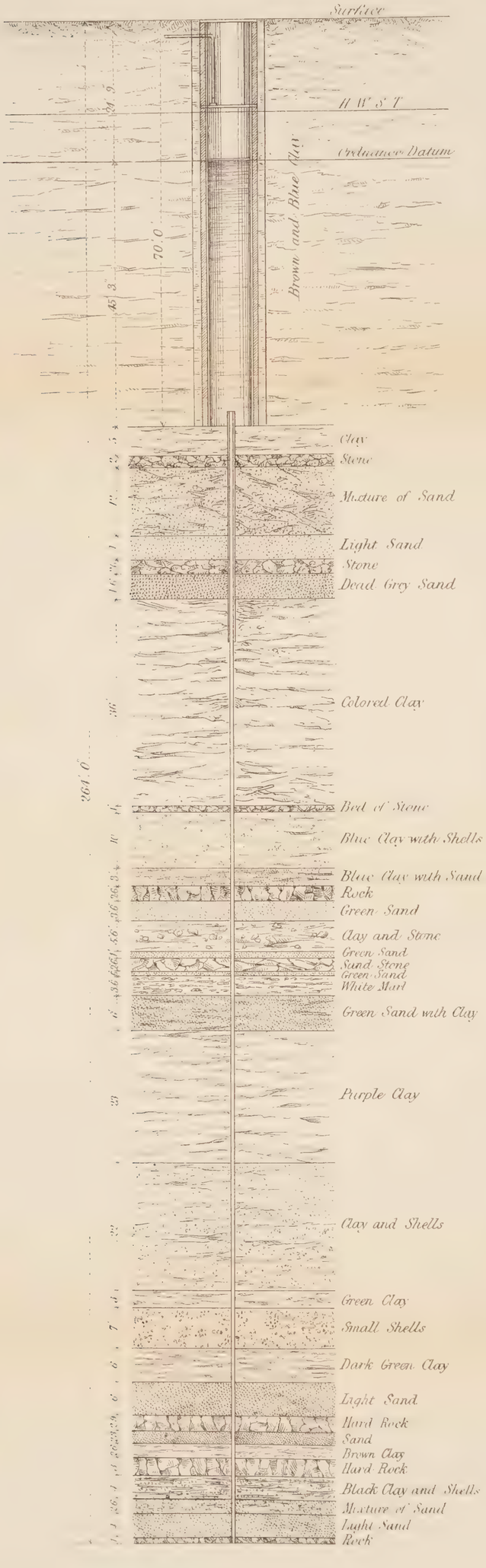
CLAVERTON WATER SUPPLY.



To illustrate Mr R. F. Grantham's Paper on Water Supply to Villages & Country Mansions.

WELL AT BEMBRIDGE,

ISLE OF WIGHT.



Paper 151.
No. 255.

RAILWAY FENCES & BOUNDARIES,

AND THE QUESTION OF SUBSTITUTING IRON IN LIEU OF THE MATERIALS NOW USED BY RAILWAY COMPANIES.

By S. B. SAUNDERS (Professional Associate).

Read at the Ordinary General Meeting of The Surveyors' Institution, *on Monday, February 6th,* 1888.

WILLIAM JAMES BEADEL, M.P. (PRESIDENT), IN THE CHAIR.

THE LATE MR. EDWARD I'ANSON, Past-President.

The President said that, before calling upon Mr. Saunders to read his Paper, he had a very painful duty to perform, but one which every Member of the Institution would expect at his hands. He alluded to the death of Mr. I'Anson, whose name appeared on the walls of the Hall in which they were sitting as President of the Institution for the year 1885-86, and who would, in ordinary course, have served a second year of office, had it not been for the fact that the Royal Institute of British Architects selected him for their President for that year. Mr. I'Anson had been closely connected with the Institution ever since its formation in the year 1868, being one of its "founder" Members. No one took a more deep and sympathetic interest in its affairs, or aided more constantly by his presence and advice in the promotion of its welfare. By Mr. I'Anson's death his brethren on the Council felt that they had lost not only a valued colleague but a personal friend, to whose zeal, energy,

and ability they had been one and all indebted on many anxious occasions. And not only by his labours on the Council was he ever ready to serve the Institution. As an examiner in several important subjects he had rendered it valuable assistance in one of the most recent phases of its development, while the pages of the "Transactions" contained many valuable contributions from his pen. Even so late as last October he had undertaken to prepare a Paper for the present Session, and was engaged in writing it at the time of his death. It was true that he lived to a ripe old age, but his death was none the less a shock to all who knew him, and he could not utter a better aspiration on behalf of those he was addressing than the hope that they might leave behind them as good a record as their late President, Mr. I'Anson. That evening the Council had passed a vote of condolence with his family, and he was sure that it would be the wish of the Members generally that it should be forwarded in their names also, as a mark of the high esteem in which he was held by every Member of the profession.

Mr. Saunders' Paper.

Perhaps no branch of the surveyor's profession is studied less, or surrounded with greater difficulties, than that which relates to the delimitation of boundaries. This causes the greater surprise, since it must be admitted that the subject has been found by those who have given it close attention to be one of very considerable interest, requiring no mean skill to deal successfully with it in its various phases.

A Paper on the subject of the boundaries of a railway company might, at first sight, appear to be of little interest, but, upon looking further at the question, the importance of the same will be recognised, when it is remembered that, at

the present time, there are about 36,914 miles of railway fencing in the United Kingdom.

Now, with regard to this, disputes are constantly arising between the companies and adjoining owners, and these disputes are not only as to the measurements by which the boundaries can in certain places be determined, but also as to the fundamental principles governing the same. The exact relationship of the boundary to the fence, or the distance at which, under the powers of an Act of Parliament, the line of the boundary may actually lie from the quickset hedge, is a frequent source of contention. It can easily be conceived that any misapprehension with regard to the limits or boundaries of railway property might most seriously affect the interests of adjoining owners, or purchasers of adjacent lands. Take, for instance, the case where a sale is being carried out. We know that a vendor is under a strict duty to avoid misleading a purchaser in relation to boundaries, also that the difference between the apparent and true boundaries has to be delineated on the plan, and specially mentioned and expressed in any particulars which may be given of the property, otherwise specific performance cannot be enforced against such purchaser, in case of dispute arising by reason of neglect or omission in this respect. But how often does it happen that a purchaser bids at a sale for a plot of land under the impression that it extends up to the hedge belonging to the railway company, and finds afterwards, to his cost, that the plan shows an undefined boundary, and, when the purchase is completed, that the company claim some feet of the land on his side of the hedge.

One could mention cases where even professional men who have rented houses have suffered under the same delusion; have planned paths and planted shrubberies, and sat down to enjoy the fruits of their labours and the pleasures of their garden, and have had their dreams rudely

dispelled by the unwelcome presence of the railway navvy, trampling along, as he roughly expresses it, simply to trim the hedge.

In the first place, then, a boundary is the divisional line, either natural or artificial, showing the limits of two adjoining properties, and a fence is an artificial inclosure to prevent trespass.

Hunt, in his book upon the subject, quotes the words of certain distinguished writers as follows:—"The term mear-"ing, or boundary, signifies the ascertained limits of adjacent "lands belonging to different proprietors. The word fence "is properly applicable to the inclosure of lands by walls, "drains, or hedges, for the purpose of agricultural improve-"ment, or of preventing trespass."

"A boundary may be known by taking a line between "two fixed points or objects, or it may be marked by stakes "erected at intervals; and at the discretion of any of "the proprietors may be permanently distinguished or "fenced by a wall or drain, according to the nature of the "soil."

"To render a thing capable of being appropriated, it is "not strictly necessary that we should inclose it, or be able "to restrain it within artificial bounds, or such as are "different from its own substance; it is sufficient if the "compass and extent of it can be determined."

These words relate more especially to the property of ordinary owners; but, to a certain extent, they also apply, in principle, to railway property.

Taking up the question upon these definitions, and coming at once to the particular description of boundary which is the special subject of this Paper, attention is first drawn to the distinctive obligations resting upon a railway company as compared with those of other owners of property. The former are principally regulated by laws of somewhat

recent date, and the latter by laws and customs, many of them handed down from remote ages.

The owner of an estate is not bound to inclose his grounds against adjoining owners (except under agreement or by prescription, *i.e.*—where a person is under a legal obligation to maintain a fence for the benefit of an adjoining owner, confirmed by custom, or by the service of a notice from time to time during a certain number of years, demanding the repair of the fence in question), the act of inclosing, under ordinary circumstances, being carried out for his own protection (see the case of *Star* v. *Rokesby*).

A railway company is bound under Act of Parliament to fence against adjoining owners, and in such a way as to prevent every kind of animal, including even a pig or a lamb, from trespassing on the line. This liability, however, is limited to the adjoining owner, as the Act only obliges a company to fence against cattle which are lawfully using the adjoining land. If the animal is trespassing before it reaches the company's fence, the company are not held liable for any accident which may happen to it by straying on the railway.

It has been decided that the liability of a railway company is not greater than that of an ordinary landowner, who is bound by prescription to repair fences for the benefit of his immediate neighbour; but the clause in the Railway Clauses Act of 1845 has been made to operate, even though the adjoining landowner has agreed with the railway company, for a consideration, to waive the erection of the fence. In a case where the post-and-rail fence had fallen away, and a cow was killed by falling into the ditch of the railway company, the arrangement with the owner did not relieve the railway company from their liability, under the above-mentioned Act, to protect the cattle of the occupier of the land.

A railway company must also fence against highways,

and they are held responsible for any accident which may happen by reason of neglect in this respect.

A station-yard must be fenced round the exterior, as in the case of other railway lands, but the railway company are not bound to separate the lines of railway from the other portions of the yard, and it has been decided that they are not liable for any accident happening to any animal which might leave the yard and stray upon the line of rails.

It is not proposed in the present Paper to consider in detail the numerous obligations resting upon a railway company to maintain gates across a public level-crossing, with stiles to foot-crossings, &c. It might, however, be worth mentioning, in passing, that many important cases have been decided bearing upon this subject, which explain the exact obligations of a railway company with regard to, and the care to be taken by, the public when using these crossings. As a general principle it may be stated that a railway company, although complying with statutory regulations respecting fences and gates, are not relieved from the common-law duty of taking reasonable precautions to avoid accidents to persons using such crossings, and in like manner contributory negligence on the part of an injured person would disentitle him to recover damages in case of accident.

Having, thus far, shortly reviewed the legal obligations of a railway company, we can now proceed to consider the manner in which those obligations have been interpreted and acted upon, both by them and the owners of adjoining property.

The practice with regard to the inclosure of railway property is rightly described, in the case of *Norton* v. *London and North Western Railway Company*, as follows :—

" The railway company first erected a post-and-rail fence " at the extreme outside of the land taken for the line, then " planted and reared a quick fence at a convenient distance

" within their boundary as a permanent fence, and occupied " the distance intervening between the outside post-and-rail " fence and the quick fence with a ditch for the protection " of the quick fence."

No mention was made in this description of any given width between the outside fence and the quick hedge, and, without doubt, there can be no greater fallacy than the notion (so often expressed) that railway companies are bound, under Act of Parliament, to plant their quickset hedge at any particular distance inside the limits of their purchase. Perhaps the best refutation of the theory is the fact, that the actual widths, if tested upon the ground, will not, in the majority of cases, agree with the width of 42 inches, which is generally fixed upon by those who advocate this theory. No restrictive dimensions are given in any of the general Railway Acts, and the advocates of the theory, so far as the writer of this Paper has been able to ascertain, have never gone, in the way of proof, beyond a vague expression of their own opinion.

The special directions in the matter are to be found in the 40th and 68th sections of the Railway Clauses Act, 1845, and are as follows:—

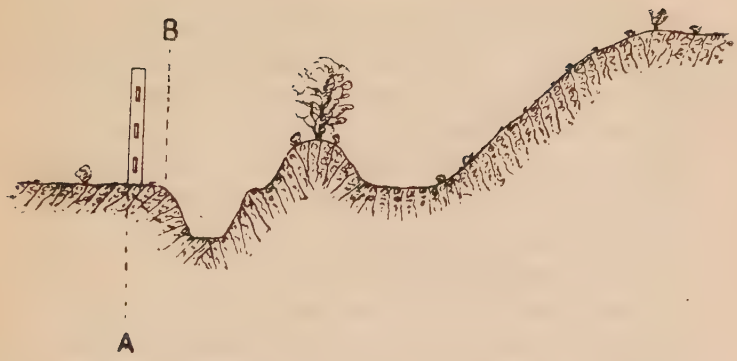
" 40. Before the company shall use any of such lands " for any of the purposes aforesaid, they shall, if required so " to do by the owner or occupier thereof, separate the same " by a sufficient fence from the lands adjoining thereto, with " such gates as may be required by the said owners or " occupiers for the convenient occupation of such lands, and " shall also, to all private roads used by them as aforesaid, " put up fences and gates in like manner, in all cases " where the same may be necessary to prevent the straying " of cattle from or upon the lands traversed by such " roads," &c.

" 68. Also sufficient posts, rails, hedges, ditches, mounds,

" or other fences for separating the lands taken for the use " of the railway from the adjoining lands not taken, and " protecting such lands from trespass, or the cattle of the " owners or occupiers thereof from straying thereout, by " reason of the railway, together with all necessary gates " made to open towards such adjoining lands, and not towards " the railway, and all necessary stiles, and such posts, rails, " and other fences shall be made forthwith after the taking " of any such lands, if the owners thereof shall so re- " quire, and the said other works as soon as conveniently " may be."

The fact is, so far as the writer has been able to ascertain from actual measurements upon the ground, a uniform distance between the post-and-rail fence and the quickset hedge is by no means always followed. Deviations are made to meet local conditions. In cases where the general widths have been laid down at, say, 6 feet, greater widths have been left here and there under special circumstances. In a case near London as much as 20 feet was found to be the distance under the award of an eminent surveyor. It was here shown that ditches of increased capacity, to carry off flood-water arising at extraordinary times, were necessary. Great divergencies, too, from a uniform width are to be noticed in the different sections of the system of any one company. There are many obvious reasons for this. The systems of the large companies are generally made up of sections taken over from time to time from local companies, or constructed by contractors; and upon these different sections the fences have been erected, without reference to any rule appertaining to other lines comprised in the same system.

The sketch shows the section which is generally followed in the construction of fences and ditches. The boundary is



on the line marked A, and the post-and-rail fence is erected within that line. The object of this fence is to protect the railway during the growth of the hedge, and until the same shall have become of itself a sufficient barrier. This fence is erected, as we have seen, at the extreme boundary, and is set back from the edge of the ditch about 10 inches, the posts of the same occupying another 6 inches.

It is, of course, apparent that the fence would not stand if it were placed on the edge of the ditch without a sufficient margin to support it.

The ditch is dug and the earth cast up to form a bed for the young plants of the hedge.

In course of time the post-and-rail fence falls into decay or is removed, and thus the principal physical indication of boundary is lost.

The earth between the side of the ditch and the vanished post-and-rail fence gets trodden in by cattle or falls away naturally, and, during the operations of cleansing the ditch, is cast on to the roots of the quickset.

Thus a difficulty arises in defining the correct limit of the railway property. The post-and-rail fence has gone, the earth has fallen away, and nothing remains but an altered ditch and the thorn hedge.

Under such circumstances the line "B" is very commonly claimed by surveyors in the interests of adjoining owners; but, if the above statement is of any value, the line A is clearly the boundary.

The ownership of the ditch in its entirety has also formed a subject of dispute, but this has generally been in cases where some special circumstances have existed as to the use to which the ditch has been put.

In many instances it can certainly be shown that adjoining owners have a distinct interest in it as a water-carrier; but on examination of railway ditches generally it will be found that as a rule they have been dug out and constructed solely for railway purposes, the adjoining owners having no interest in the maintenance of them.

The ditch has been occasionally lost through neglect on the part of the railway company to maintain and cleanse it. More frequently it gets filled in by the speculating builder, who seldom respects it if he thinks that he has a favourable opportunity of adding it to his land. It has been found therefore necessary, in order to prevent disputes, to keep the ditches carefully cleaned out, because of the possibility of losing them by adverse user.

In Norton's case railway property was treated as limited fee-simple, and a ditch which the railway company had allowed to be ploughed up was considered to have been deliberately abandoned by them.

Another question arises. Is there anything in the expression "Custom of the Country"? It is not uncommon to hear this term applied to railway ditches, the idea being that the limits of the railway property from the root of the quickest hedge are regulated by, and alter with, the customs which prevail in the different localities through which the railway passes.

It need hardly be said that this method of adjusting a railway boundary is wrong. Indeed the term "Custom of the Country" is in itself so vague, so far as actual measurement is concerned, that it is doubtful if it could be applied to the adjustment of a boundary of any kind whatever. This opinion is confirmed on referring to the case of *Vowles* v. *Miller*, where it will be seen that the contention about a 4-ft. customary ditch was entirely set aside as having nothing whatever to do with the question, it being held that a man might cut his ditch as much wider as he liked, provided, of course, that he enlarged it on his own land.

This is exactly what is contended by railway companies.

In conclusion, the disputes which are so continually arising with regard to the boundaries of the kind of property under consideration would seem to point to the desirability of adopting some means of permanently inclosing all railway lands at their extreme limits, and this should be done as much in the interests of adjoining owners as of the railway company.

A dispute with a body so well armed with the means either of aggression or resistance as a railway company becomes a serious matter to any individual; while, on the other hand, railway companies would be saved a good deal of litigation and expense if they could, by erecting a lasting fence at the limits of their land, for ever after use the same without opposition or the possibility of discovering that they had lost a part of it by adverse possession.

An examination of any considerable length of thorn hedge will reveal, even to an unpractised eye, the many defects which exist in that kind of barrier. The plant is not in all cases indigenous to the soil. The many instances of poor growth are a proof that some better form of inclosure should be sought. But in looking for the right thing one is

liable to stumble over conflicting interests. No doubt everyone remembers the fable of Æsop, where the three tradesmen met to consider the best means of defence for the besieged city. One was a bricklayer, and thought a wall the best protection against the foe; another, a carpenter, with equal energy advocated the use of wood; while a third, a currier, insisted on leather.

Now, we find that a wall is too costly, wood rots and falls away, and leather has not been tried. We must consider therefore another material—viz., iron.

There are two chief difficulties to meet in the matter of iron—viz., rust and cost. As to the first it would appear that a process has at last been discovered which completely does away with this great defect of iron; and if the Bower-Barff process, which is a method of coating iron with a magnetic oxide by means of heat, causing it permanently to resist all atmospheric deterioration, is proved to have the effect which is claimed for it, iron will certainly surpass all other materials for fencing, as also for many other purposes.

The second difficulty, the cost, is a very important matter, but it can be carefully considered and compared with the cost of the ordinary post-and-rail fence and quickset hedge, which are now used together.

Take first the cost per chain of the present kinds of fences including materials and labour.

	£	*s.*	*d.*
1 chain of ordinary post-and-rail fence fixed complete - - - -	2	15	0
264 thorn plants to form one chain of double row quick hedge, and labour in planting - - -	0	9	0
Excavating ditch - - - -	0	4	0
Total per chain	£3	8	0

Secondly, the cost per chain of iron fencing.

	£	*s.*	*d.*
1 chain of 6-rail wrought-iron fencing fixed with stays complete, and including 2 coats of black varnish	5	8	2
Excavating ditch - - - -	0	4	0
Total per chain	£5	12	2

	£	*s.*	*d.*
Or 1 chain of $\frac{5}{8}$ths wrought-iron vertical bar fence 4 ft. high, with pointed top, and top and bottom rail fixed complete and varnished -	6	0	0
Excavating ditch - - - -	0	4	0
Total per chain	£6	4	0

These calculations with regard to iron are the outside figures, and relate to some fences which have already been erected.

It is, of course, certain that if iron were adopted to any great extent the construction in that material would become a specialty, and the cost be materially lessened.

At present the cost of iron is, in the first instance, as has been shown, considerably more than that of the kinds of fences now in use; but against this should be placed the greater durability of iron, and the saving which could be effected year by year by abolishing the maintenance of the ditch over immense distances where it is of no possible use, apart from its connection with the growth of the quickset hedge.

There are these facts also in favour of the iron—it could be made to meet all circumstances, and would be a sufficient fence against cattle. In the case of the vertical

bar fence it would be unclimbable except by the most determined trespassers. It could be fixed on the exact boundary, and would remain the permanent fence. Thus a large number of disputes, such as have been mentioned, would be avoided. If extra purchases were made by the railway company, or sales of surplus lands effected by them, the iron fence could readily be shifted to the new line of boundary, and, what is of some importance to adjoining owners, its appearance would not offend the eye.

It is true that the iron fence, if not treated by the system already named, ought to be painted, tarred, or varnished every 3 or 4 years to prevent rusting; but, taking everything into consideration, I am disposed to think that railway companies would find it cheaper in the long run to erect iron fencing in the first instance, in lieu of the post-and-rail fence, ditch and hedge, with their concomitant cost of maintenance, difficulties of determining boundaries, loss of land, expenses, litigation, and general inaptibility to perform the work for which they are intended; and of the two kinds of iron fencing I would advocate the vertical fence beforementioned.

Since writing this Paper, I have been looking further into the question of the cost of iron fencing.

I anticipated, as will have been noticed, that a cheaper fence could possibly be found than the one I had in my mind, and quite recently one has been brought under my notice which is the best I have yet met with.

It is strong and substantial in make. I am told that large quantities of it are sent to India, where it is very extensively used for fencing railways.

It is a pale-fence, 4 feet high, and consists of steel moulded plates, fastened by means of rivets to horizontal bars of strong angle iron, at top and bottom.

Each pale is 3 inches wide, and the distance between

the pales is $7\frac{1}{8}$ in. from centre to centre; this leaves an open space of $4\frac{1}{8}$ inches between the edges of each pale.

The fence is made in panels 9 feet long with T iron standards and struts driven $2\frac{1}{2}$ feet into the ground and with side stays of $\frac{7}{8}$-inch square iron to support each panel in the middle. This stay is bolted to the top horizontal bar and fixed underground to a wrought-iron plate.

The 9-foot sections are connected up with fish-plates, nuts, and screws.

I am advised that this fence can be provided and fixed complete, if ordered in large quantities (say not less than five miles), at a cost of 4*s.* *per yard* = £4 8*s.* per chain.

It will be seen, therefore, that the actual cost of this is only £1 per chain more than the cost of the fences now used by railway companies.

Mr. E. Ryde (Past-President) had much pleasure in moving a vote of thanks to the author of the Paper, and all the more so because he was a Professionial Associate of the Institution. Papers read by the younger Members were not only useful to the Institution, but could hardly fail to be of benefit to the writers themselves.

He was, however, somewhat disappointed to find that Mr. Saunders had omitted to point out the importance of an accurate survey for preserving boundaries. The boundaries of a railway company's land would be indicated in a much more simple and effectual manner by a map or plan than by any other means that could be suggested.

It must not be assumed that there was any difference in point of ownership of land between the case of a railway company and that of a private individual. Every owner of land, he ventured to say, had equal rights in this respect, (from the surface to the heights above and to the depths below),

although he did not lose sight of the fact, that a railway company was not, as a rule, entitled to the minerals under its land. A railway company, if it desired to maintain its boundaries, or its property in land, must exercise acts of ownership upon it. It could not, for instance, allow the land to go from its occupation into that of other parties for twelve years and still expect to retain the ownership. In short, a railway company was expected to look after its boundaries in the same manner as a private owner.

The author had referred to the varying distances between the boundary line and the line of quickset hedge, "under the powers of an Act of Parliament," as being a frequent source of contention. So far as he knew there was no Act of Parliament which had any reference whatever to the distance of the actual boundary of the property from the line of the quickset hedge, nor was there any reason why an engineer or contractor, called on to fence in the land of a railway company, should not, if he chose, put his fence 20 feet from the boundary. In fact, there was nothing in any Act of Parliament or custom of the country to affect the question one way or the other. A railway company, having taken lands from private individuals under compulsory powers, was bound to fence in those lands immediately on taking them. The author also referred to a case where a landowner had made some bargain with a railway company not to have a fence erected, and the company had afterwards been called upon to put up a fence. Of course the special power given to a railway company was given under the special condition that they should fence in the land, and they could not put themselves outside the Act of Parliament by a private agreement; nor was it right that they should do so, for a landowner, having an interest for the time being only in the land, might, in order to gain some slight advantage, agree that the company should dispense

with the fence, to the detriment of public interests and those of subsequent owners. He believed the best thing for a railway company to do, though the expense might deter them, was to let a competent surveyor make a plan on a sufficiently large scale to enable them at any time to determine their exact boundary. If they also, within a certain number of years, exercised their right of ownership over every piece of their land, there would then be no difficulty about boundaries.

Whether railway companies were erecting the right sort of fences now, or whether they should put up iron fences, was a point on which very diverse views would, probably, be expressed. It must, however, be remembered that iron, though durable, would not last for ever. The iron itself did not perish, he admitted, but every form of iron fence (and he had tried many) was liable to damage. It was said that an iron fence was a protection against cattle, but this depended upon how heavy, how big, and how determined the cattle were. A heavy bullock could seriously damage an iron fence, which, when once broken, required a good deal of mending, and, as he had found to his cost, iron fences were, therefore, not altogether inexpensive to maintain. The fences shown by the author would be most suitable for situations where it was necessary they should be unclimbable. The best fence against cattle was a round bar fence. But, after all, the question of the best kind of fence entirely depended on the situation. The same kind of fence would not be equally suitable for a park, a fox-cover, and for arable land, and he thought that for general purposes there were few fences better than a quickset hedge, always supposing a soil in which quick would grow. When dealing with a soil not suitable for quick, a substitute for it must, of course, be found. A live fence, in agricultural districts especially, or on arable land, was the cheapest and best, in his opinion, that could be adopted.

It should be planted in double rows, so that the plants in one row came opposite the spaces between the plants in the other row. Then, with proper attention and cleansing (an important point), as good a fence would be formed as a railway company need want through an agricultural country. In conclusion, he repeated his belief that a railway company could best preserve its boundaries by means of a map or plan, drawn to a large-enough scale, with, if desired, figured dimensions giving the width from some definite point which could always be referred to.

Mr. E. P. Squarey (Vice-President) had much pleasure in endorsing the vote of thanks to Mr. Saunders for his Paper. He noticed that Mr. Saunders had used the word "mereing,"—a most interesting word, he believed of Saxon origin. The word "mere" was frequently used to denote the Saxon or Celtic boundary between different parts of the country. He knew of two instances of its use—one in Wiltshire and one in Somersetshire, both of which were outside the boundary of the ancient kingdom of Wessex.

Mr. Saunders had also referred to the orthodox 42 inches from the centre stake of the fence, which was taken generally as representing the boundary, but the distance was a matter of such an elastic character that, in certain districts within his knowledge, it varied from 3 feet to as much as 4 feet 6 inches. A railway company could, of course, place their fence wherever they pleased within their own property; and he merely mentioned this to show that there was no fixed principle governing the distance, which was regulated entirely by the custom of the country. On an estate in Berkshire, through which the Great Western Railway ran for three or four miles, the company's boundaries were generally accurately set out by bits of old rail, irrespective of a quickset fence, which was very well maintained.

None of the adjoining owners or tenants there would think of appropriating any of the land within the occasional iron posts, placed at intervals of about 100 yards to indicate the boundaries. He believed that quick fences were, until recently, the very best and cheapest fences that could be put up; but since iron had become so cheap and had been so improved in quality and manufacture, he was disposed to regard it as the cheapest fencing that could be employed, the cost of varnishing and taking care of an iron fence being much less than that of cleansing, cutting, and trimming a quickset fence year by year. His friend Mr. Ryde had spoken of the probable want of durability of iron fences and their liability to damage from strong animals getting into them. This was true as a rule, but he had an instance in his own mind of a fence made of steel-wire and ordinary uprights, put up 32 years ago, at Fonthill. About five years after its erection a bull, attracted by some heifers, endeavoured to get into the adjoining field, and got fixed in the fence, where he struggled for something like seven hours; and when, by dint of great exertions, a company of men pulled him out of the entanglement, the fence went back into its place, and there was no trace left of any animal having been in it. He was sorry to say that a fence, put up by another maker, was not so successful; but he knew others which had been up something like twelve years, and there was not a sign of a shake in them. They were rather costly, but not excessively so.

Mr. J. H. Sherwin (Fellow) said he would like to mention a case he was concerned in which was lately before the Courts, and in which Mr. Justice Kay, after a great deal of heavy litigation, gave judgment a fortnight ago. It bore very much on this particular Paper, and brought

to his mind the importance of the subject. The case was connected with the company of which Mr. Ryde had a very great knowledge—viz., the London and South Western Railway Company.

The principle that all railway companies should have a plan was very excellent, so far as the companies were concerned, but he failed to see how the existence of a plan in the possession of a company could assist third persons, who would, in all probability, in a case such as that to which he was about to draw attention, be ignorant of the boundaries of the railway company. Shortly stated, the facts were as follows:—

At Weybridge a small estate, consisting of a gentleman's residence and 6 acres of land, was divided into two parts, one of which, taken for a kitchen-garden, had a length of 600 feet and an apparent depth of 85 feet. The boundary on one side of the kitchen-garden was formed by the public road, and on the other by the railway company's fence. Inside this fence, however, a strip of land, 30 feet in depth and running the whole length of 600 feet and belonging to the railway company, had for many years been allowed to go as part of the estate, and had been laid out and enjoyed by successive tenants, being used for vegetable and strawberry beds, fruit-bushes, and the like. Even small timber-like trees had been allowed to grow, and the result was that, to the eye of a stranger, or even of a surveyor, there was nothing to mark the railway boundary with the exception of three pieces of railway metal projecting 4 inches above the ground, and which, when he made an inspection in December last, were covered by fallen leaves. No plan existed, so far as third persons were concerned, and therefore this costly litigation had arisen. If he had the opportunity of obtaining the shorthand notes of the decision of the Judge he would like to add them to the "Professional Notes" as the case,

which had not been reported, appeared to him to be full of interest.

The defendant in the action entered into possession under an agreement for a lease; but after three months' occupation, and simply on the ground that those 30 feet of land were of importance, declined to continue the tenancy, and was backed up by Mr. Justice KAY, who decided that specific performance could not be ordered, but left each party to pay his own costs. That litigation, resulting in loss to all parties, was entered into from the fact that a proper boundary fence was not shown indicating the ownership of the railway company. Before concluding his reference to this case, he should like to say that the kind of fence which he saw at Weybridge had not been alluded to by either of the speakers or by Mr. SAUNDERS—he meant old or disused creosoted sleepers. He was not in a position to offer an estimate of the cost of that kind of fence, but he could not help thinking it would answer all the purposes of an iron fence, and would be much less expensive, for the simple reason that the materials were, more or less, coming to the hands of the railway companies year by year. The sleepers, 4 feet 8 inches high, were placed 8 feet apart, with open lattice-work between the posts. They ran, he believed, 10 inches broad by about 5 inches in thickness, and he ventured to suggest to Mr. SAUNDERS whether the very fact that these old creosoted sleepers, which were continually accumulating in the hands of the railway companies, would not afford a much more economical fence than those a railway company generally employed.

Mr. R. C. DRIVER (Vice-President) said he had found great difficulty at times in ascertaining the boundaries of an estate where the original post-and-rail railway fence had disappeared. He spoke particularly with reference to the

boundary between the South Western Railway and an estate for which he was concerned. The land purchased was first inclosed with a temporary railway post-and-rail fence, and afterwards a hedge and ditch was formed inside, and in the course of time this original fence disappeared. In the result, the company sent their engineer to define the various boundaries. It was found, on looking at the original plan on their conveyance, that in many places as much as 6 feet was left uninclosed, while in other places they had inclosed the land up to the very limit. He believed this setting back the hedge was in consequence of the floods to which those localities were subject. They had great difficulty in determining the matter, and, had not the utmost forbearance been exercised on both sides, a very unpleasant and troublesome litigation might have ensued. He, therefore, thought it would be better not to inclose with posts and rails (which were perishable), but that a flat iron fence would be preferable. As a sportsman, he would certainly prefer such a fence to that shown on the diagram on the wall. On one occasion he had offered some land for sale at Plumstead, abutting on the North London Railway. There was an iron fence between the land and the railway, which, he believed, was the boundary of them. Having sold the land at a full price per acre, the purchaser wished him to prove that the boundary of the land of the railway company was correctly defined by the iron fence, and he succeeded, after a great deal of correspondence and going to and fro, in proving that the iron fence was the proper boundary. He thought, therefore, that it would be very desirable if some conclusion could be come to before the discussion closed as to the best fence, and as to the desirability of fixing the boundary by permanent marks in the first instance. As Mr. Ryde had

suggested, a plan kept in a railway company's office would be very useful evidence of the exact limits of the company's property as originally purchased.

Mr. R. F. Grantham (Associate) thought that many would be disposed to concur with Mr. Saunders in thinking that an iron fence was the best that could be employed as a permanent boundary. He would be glad if that gentleman could give the cost of the permanent fence which, he believed, ran for a long distance alongside the London and North Western Railway.

As a matter of history it might be of some interest to give an extract from one of the contracts of the Great Western Railway made 40 years ago. He found the cost of an ordinary post-and-rail fence, with posts 7 feet in length and four rails of 10 feet each in length, was 1*s.* 8*d.* per lineal yard. In Mr. Saunders' Paper, the cost of a post-and-rail fence was put at £2 5*s.* per chain, or 2*s.* 0½*d.* per yard. That would be, he supposed, 3 feet 6 inches high to the top rail. A few years ago he put up an iron flat five-bar fence with a round bar at the top (which was a common form of fence), 3 feet 6 inches in height, at 3*s.* a yard, which compared favourably with an ordinary post-and-rail fence at 2*s.*, such as Mr. Saunders described, the difference being only 11½*d.* He believed, however, that the fence alongside the London and North Western Railway had six bars, which would, of course, make it more costly; but he did not quite understand how the cost of the chain of a wrought-iron six-bar fence came to so much as 5*s.* a yard, or £5 8*s.* 2*d.* a chain, as given by Mr. Saunders. It seemed to be rather a high price. He had lately put up an unclimbable fence 4 feet 6 inches in height, with round bars pointed at the top, for 5*s.* 3*d.* a yard. He considered that a

six-bar fence with a round bar at the top should be a good deal cheaper than 5*s.* a yard at present prices.

Mr. D. Watney (Fellow) agreed with what had been said in favour of iron fencing, but, like Mr. Grantham, he did not understand where Mr. Saunders got his figure of £5 12*s.* 2*d.* per chain for iron fencing. He had within the last few years put up a great deal of stout fence with six bars—that is, five flat bars and a round bar at the top, 4 feet 6 inches high, at a cost of 3*s.* 6*d.* a yard, or £3 17*s.* a chain, and it was as straight now as the day it was erected. There had been some heavy bullocks in the adjoining fields, but they had made no impression on it, and for the reason that on account of the height, they could not get their heads over so far as to obtain a good purchase for their necks. If a bullock got his neck well over an iron fence, no matter how strong it might be he would bend it if he went at it with a will.

With regard to railway fencing he thought it very important that the boundary line of a railway company should be defined by a boundary fence. He did not like the short iron rail stumps which were set up between Redhill and Ashford. They were sometimes 8 feet or 10 feet out in the fields. The boundary was not always visible to the eye, particularly when crops were about, and it was, in his opinion, necessary that there should be a good permanent fence. The suggestion made by Mr. Ryde as to having a plan was an exceedingly good one so far as railway companies were concerned, but it would be of no use whatever to a private owner who wanted to know his own boundary. Then, again, a post-and-rail fence was apt to get worn out; the posts and the rails disappeared, the ditches got filled in, and there was a frequent difficulty in consequence, in ascertaining the exact boundary. He was settling the boundaries of an estate some few years ago for the purposes of registration of the

title, and the Brighton Railway Company claimed that their boundary was 6 feet from the centre of the hedge. It was impossible to disprove it, for he could not obtain the old plans from the draft conveyance to the company, and he was consequently unable to dispute the claim. Under all the circumstances he considered that a railway fence should be of such a permanent character that there could be no kind of dispute about its accuracy.

Mr. H. S. Fenning (Fellow) said that he had put up some few miles of iron fencing in different places, and he agreed with Mr. Watney that the extra six inches in height, as between 4 feet and 4 feet 6 inches, was very desirable, especially as it made very little difference in the cost of fencing. When a bullock came up to the fence the extra six inches made him turn his nose up, and prevented him from getting the purchase he would otherwise have. He had seen fences of 4 feet and of 4 feet 6 inches used, and entertained no sort of doubt as to which was the right height.

Wire fences could now be made as strong and so much more cheaply than continuous bar fences, that they were worthy of notice. A six-bar iron fence which he put up some lengths of came to £3 a chain, or £240 a mile. It was 4 feet 6 inches high, and was composed of six strong bars—five flat and one round at the top. A 4-foot 6-inch wire fence which he had put up came to £180 a mile. It was a very strong, good fence, and had stood well for nine years, during which time it had been exposed to stock on both sides without giving way in any place. It was strand wire; but he had come to the conclusion that plain steel wire was better, as the strands were liable to fray out, necessitating the replacing of great lengths, whereas with solid steel wire there was no such liability.

As to the boundaries of railways, he knew of instances in his own district where the company claimed 6 feet from the fence. He might mention that the L. & N. W. Railway had set out the 6-foot boundary by iron stumps in places.

Mr. Saunders, in reply, said, with reference to Mr. Ryde's remarks about a plan, it occurred to him that, perhaps, the plan might not be accepted by both parties as evidence of boundary. Of course, it was easy enough to draw a plan and delineate a boundary which might be at any given distance from the centre of the quickset hedge, but the difficulty would be, as he had said, to get both parties to agree to it. If, for instance, he, as the owner of property on one side, said, "I hold a plan in my possession showing that the boundary extends to a given line," it did not follow that his opponent, who owned the adjoining property, would accept it as evidence—in fact, he commonly found that the plans on conveyances, where adjoining property had recently changed hands, had generally been coloured up to the firm black line denoting the centre of the quickset hedge. It was seldom that the dotted line running along by the side of the firm line, and indicating the presence of a ditch, was found on these plans. It was clear, therefore, that the adjoining owners did not accept the contention of the railway companies that the boundary was 4 feet or 6 feet from the centre of the quickset. He had found it sometimes 4 feet 6 inches, and sometimes 5 feet; but over great distances, it was 6 feet from the centre of the hedge, as measured on the ground.

In fixing upon the fence shown by the diagram on the wall, what he had particularly in view was that it should be unclimbable, that being of the utmost importance. He had thought of the hunting gentlemen, but he was afraid their interests had been passed over by the maker of the steel fence.

Mr. Driver explained that his remarks applied to shooting and not to hunting.

Mr. Saunders (resuming): If the fence were sufficiently wide to get one's foot through between the spars, the height between the cross-bars would prevent a person from getting over the top. It would be impossible to climb this fence after it was once fixed.

With regard to the question that had been raised as to the distance of the boundary from the quick hedge, it would be noticed that the 4-foot width had been taken by two speakers as being the correct width. Mr. Ryde referred to it, but, as he (Mr. Saunders) pointed out in the Paper, there was nothing in the Acts of Parliament showing that there should be any particular width left between the quick fence and the boundary.

With reference to Mr. Sherwin's suggestion of employing disused sleepers, a sufficient quantity of sleepers could not be got to make the necessary fences for a railway company, and, even if they could, they would cost more than the steel fence under consideration. Sleeper fences, too, were always considered ugly, and, generally speaking, adjoining owners did not like them however neatly they might be pointed at the top.

His idea in choosing the steel fence was that it was not unsightly when fixed, and it was superior to a sleeper fence for many reasons. He was pleased to note that Mr. Driver advocated an iron fence. He anticipated that he would. He believed that Mr. Driver mentioned a 3-foot ditch. In a great number of places it would, he thought, be found, if measurements were taken, that a ditch and quickset hedge could not be formed in a space of 3 feet. The 3 feet would generally reach to the inside edge of the ditch only, which would throw the same into the adjoining property,

losing it to the railway company. It was necessary, in most instances, that the space should be 6 feet to properly form the ditch and its abuttals.

With regard to the figures he had given in his Paper, they were taken from the actual cost of fences erected, but he admitted that he had had some misgivings on the point. It was because he had thought a cheaper fence ought to be got for larger quantities that he had made further inquiries, and had found that the fence shown on the diagram could be got for about £1 per chain only in addition to the cost of the fences now used. The six-bar flat fence which had been mentioned at 3*s.* 6*d.* a yard was not unclimbable, and therefore it would not do for a railway. Amongst other animals which a railway company had to fence against, were pigs and lambs, as he had mentioned in his Paper. Horizontal bar fences would not keep out small animals; where sheep were kept lambs would be sure to stray on to the line (perhaps a large number), which would lead to claims for damages. The vertical bar fence would keep back small animals.

He noticed that 4 feet 6 inches had been regarded by a previous speaker as the right height. As to that, he should be glad to get some data to go upon. A 4-foot fence was generally considered high enough. A wire fence, he thought, would not do, as that also would not be a stop to small animals.

In conclusion, he begged to express his thanks to the Members for the manner in which they had received his Paper.

The President said that the discussion, though not very long, had been interesting, as he thought all would admit.

He quite agreed that it would be an advantage if rail-

way companies could be compelled by means of some permanent fence to mark the extent and limit of their property, though, no doubt, there were difficulties in the way of their doing so. A fence of the kind would get rid of all disputes as to the distance of the actual boundary from the quick, which, as had been pointed out, varied so greatly in different localities. Reference had been made to the system in vogue with some companies of indicating their boundary by means of bits of old rail placed upright in the ground. In his own parish, the Great Eastern Railway adopted the less unsightly method of affixing a tablet to a post with the letters "G.E.R." upon it, and the distances in feet to which their boundary extended. In many instances this amounted to as much as 17 and even to 27 feet, as was the case in the parish in which he (The President) resided.

Of course a quick hedge necessitated a certain amount of margin for bank and ditch, whereas a permanent fence could be placed on the very edge of the property. The best form and material to employ for the purpose seemed to be open to doubt, notwithstanding what had been said in the course of the discussion. He could understand the utility of a fence such as Mr. Saunders had recommended in cases where the railway was passsing through orchards or private grounds, where strict privacy was necessary; but for a purely agricultural district it appeared to him that the outlay for such a fence would be greater than any railway company ought fairly to be asked to undertake.

The author, in his Paper, had put the cost of an ordinary post-and-rail fence at £3 8*s.* per chain, and the cost of a six-rail wrought-iron fence at £5 12*s.* 2*d.* per chain—a difference of £2 4*s.* per chain. This, multiplied into miles, came to something rather startling, for it must be remembered that a railway company had to fence two sides. Taking the difference between £3 8*s.* and £5 12*s.*, it would be found

that it increased the cost of the fence £176 per mile for one side, which, doubled, represented £352 per mile. A railway company was bound to have regard to its expenditure in fencing as in everything else, in the interest of its shareholders, and it was possible that the reason iron had not been employed up to the present time, except in districts where iron was cheaper than anything else, was that the cost was too great for its general adoption.

The vote of thanks having been duly put and carried unanimously, the Meeting adjourned.

No. 256.

AT

THE ORDINARY GENERAL MEETING,

Held on Monday, February 20th, 1888.

E. P. SQUAREY (VICE-PRESIDENT) IN THE CHAIR.

The discussion on the Paper, entitled "Notes on Water Supply, with special reference to Villages and Country Mansions," by R. F. GRANTHAM (Associate), read at the Meeting of January 23rd, 1888, was resumed.

The CHAIRMAN said it had been considered desirable before the discussion on Mr. GRANTHAM's Paper was resumed that he should say a few words with reference to a Bill which had just been introduced into the House of Commons, "The Architects and Engineers Act, 1887," which was down for second reading on the 11th April. Possibly many of those present had received copies of a draft Petition and circular letters from the promoters, asking them to support the Bill. The matter had been before the Council that evening, and he was desired to state most emphatically that they had no connection or sympathy with the Bill in question; and that, whatever course it might, on consideration, be thought desirable to take hereafter with reference to the matter, would be taken after consultation and in concert with the other chartered Societies affected by the Bill.

The Council did not wish it to be understood, at the present moment, that any decision had been arrived at as to the course to be taken, but simply desired to place the Members of the Institution on their guard, not to accept

or support at once the suggestions contained in the circular letter issued by the promoters of the Bill. He merely mentioned this by way of precaution.

Mr. C. John Mann (Fellow) said he was sure the Members would be glad of the opportunity which the Council had afforded them of resuming the discussion on Mr. Grantham's very interesting Paper.

On the last occasion when the Paper was under discussion, he remarked on the absence of any special allusion to the collection and storage of rain-water as a supply for country mansions and villages.

The author had remarked, in the first page of his Paper, that "rainfall supplies all water found in springs, rivers, and wells"; and he (Mr. Mann) ventured to think, considering the difficulty there was in keeping any of these sources of supply free from pollution, and their liability to run short in times of drought, it would be well worth ascertaining whether it were possible, and desirable, to collect and store the rain-water before it entered any of those sources. The subject appeared to be especially interesting at the present time, when a season of drought was anticipated, as would be seen on referring to a letter in the *Times* of the 6th inst. from Sir John Lawes, calling attention to the prospect of a short supply of water during the ensuing summer. The continued and rapid extension of drainage schemes all over the country was, he thought, diminishing the quantity of water supply, and deteriorating the quality, and had been doing so for some time. He mentioned this as pointing to the desirability of considering whether the rainfall could be properly collected. The water supply to most houses and cottages in villages was from surface wells, and they were nearly all more or less impure, and many of them had been closed

by order of the sanitary authority. Even deep wells were liable to contamination from the higher ground, and the manure put upon it. He was, of course, aware that there were many difficulties in connection with the rain-water supply which he suggested, and he hoped that those in the room who were able to discuss the subject would throw some light on it.

The author had remarked, at page 161, in answer to an observation of his on the last occasion, that a clergyman he knew was "careful to draw the rain-water from the middle "of the depth of the tank—not from the extreme bottom "on account of the dirt deposited there, nor too near the "top on account of the dirty matter floating on the surface." He believed that if similar care were used in collecting and roughly filtering before storing, and then filtering afterwards, there would be no pollution to complain of. The mode which he suggested had been under his notice in several cases—notably about ten years ago on Sunk Island, near Hull, where he erected several sets of farm-buildings and numerous other buildings, by direction of the late Mr. E. J. Smith. The water in the wells was salt, and every precaution was taken to collect the rainfall from the buildings in the best possible manner. The eaves-gutters were very large, and movable perforated iron plates were fitted in them to filter out the leaves and other things which might be washed into them. The roofs were kept as clean as possible, and the water was conducted into very large underground storage tanks. He did not think, however, that they filtered it at that time so thoroughly as had since been done. Tanks filled with stones and sand roughly filtered the water before the final filtering. All the tanks were easy of access, and the filters could be taken out for cleaning with the greatest ease. He had also erected farm-buildings in the fen districts of Cambridgeshire, where rain-water

was used for domestic purposes, and was carefully stored. At a large mansion in Buckinghamshire, all the requirements were satisfied with rain-water, and at another place, in Kent, where spring-water was plentiful, the owner had the rain-water from the numerous green-houses and slate roofs collected into a drinking-water tank, as he preferred drinking the rain-water to the softened spring-water. The hot-water pipes throughout the house were supplied from the the same source, so avoiding all the deposit which was such a frequent cause of annoyance in stopping up pipes. The storage tanks should, he thought, in all cases be under ground.

At page 141 Mr. GRANTHAM had quoted some interesting and useful details of cost of water supply, given in 1881 by Mr. LUCAS, showing that the cost per house per week amounted to less than the limits prescribed by the Public Health (Water) Act of 1878, the highest being $1\frac{1}{2}d.$, and the lowest $\frac{1}{2}d.$ per house per week. This appeared to be a very low estimate, and it seemed, he thought, very desirable to supply villages much more frequently than they were supplied if it could be done at so small a rate. He remembered bringing water from a spring on private property into a village, and distributing it with three or four stand-pipes about the place, at a very small expense. Some of the springs running to waste were altogether lost sight of.

With regard to the analysis of water, he found that doctors differed very much, and he agreed with what the ATTORNEY-GENERAL said that it would be desirable to obtain some sort of concise statement of what was really deleterious in water, and what might be reasonably dis-disregarded: something which the ordinary consumer might be able to take as a guide.

Hot-air-engines and wind-mills, which Mr. GRANTHAM

alluded to in his Paper as powers for raising water, gave, he thought, very satisfactory results.

Mr. W. Topley (Visitor) said that the ground travelled over by Mr. Grantham in his interesting Paper was so wide, that he thought it would be desirable, in his remarks, to limit himself almost entirely to the first question raised in the Paper, and also to certain remarks made in the discussion on the first occasion (at which he was exceedingly sorry he could not be present), by Mr. Grantham and Mr. Pattisson, with reference to the maps of the Geological Survey showing superficial deposits.

In order to illustrate his remarks, he had brought down some recently-published Geological Survey maps of East Yorkshire (on the scale of one inch to one mile) which he had hung on the screen. The information afforded to engineers by ordinary geological maps was illustrated by the map hanging in the room. [The Greenough map, published by the Geological Society.] If one wanted to know the structure of the ground at some depth from the surface, that showed it; but on such a question as was interesting them on the present occasion, namely, Water Supply, and such a question as the distribution of soil, and so on, over a great part of England, that map was utterly misleading, and for this reason that what was shown on the map as solid rock was often covered by wide-spread superficial deposit. For instance, in one district the map might show a very stiff clay. If overlaid by drift-sand it would make a very light soil, and be water-yielding, whereas in another it would be impervious and stiff soil. Again, there might be chalk, into which water should easily percolate, shown in such a map, and if they examined the ground in detail, they would find, perhaps, that the greater part of the area was covered by

superficial deposit. Extreme cases occurred in Norfolk and in Suffolk, where the solid rock was chiefly chalk, but so thickly covered with drift that the chalk was reached only in the deepest wells. The Greenough map referred to was the only general geological map in which the superficial deposits of eastern England were at all depicted, and in that map not in a way to be of any value, because the variations in the drift-deposits were not shown.

A very extreme case was an area shown in the north-west part of the Yorkshire map, to which he had referred. There were large areas of blue colour representing clay, with occasional patches of pink representing sand and gravel, but in another map of the same area in which the superficial deposits were not shown, they would see a very different state of things. This showed a very large area of magnesian limestone, a rock in some respects not unlike chalk in its water-bearing qualities, into which the water could readily sink if the rock were exposed. But the only places where water could get in were the small patches on the north-west corner of the map. Then there was an area of new red sandstone, which was well known to be one of the best water formations, and there were very few places in it where water could get in because it was thickly covered with clayey drift. It was only on the rising ground in East Yorkshire and the Yorkshire Moors that there was a considerable amount of ground not covered with drift.

It was highly important to know the extent and nature of the drift in selecting sites for storage reservoirs. Limestone might be shown on the map, which in itself would be a bad site. If thickly covered with boulder clay it might be a good site, but engineers must be careful not to be misled by even a geological drift map. Boulder clay, if it contained thin seams of sand and gravel, might be extremely treacherous ground.

These maps were of use to engineers in studying the soil of the country, but they did not pretend to show the exact agricultural value of the soils. That must be obtained by other means of investigation. All that the Geological Survey could do was to offer such maps as might serve as the foundation for agricultural maps, and, similarly, as to the information they would give on water-bearing formations, &c. It was not the duty of the Geological Survey to make an actual agricultural or a hydro-geological survey—his friend Mr. Lucas had shown the way in which the latter object could be accomplished—though in the Geological Survey office they had a large amount of information which was at the disposal of engineers who wished to have it.

He would like to point out a few matters in which engineers might help the question of hydrogeology. Points were continually cropping up on which there was a great deal of information that could be obtained by them at small trouble to themselves. One point was the influence which faults had on water supply. It was evident in a moment, that if the beds were much fractured, much depended on the structure of the country as to how the underground water travelled; but it was an extraordinary thing that we knew very little as to how those faults did act. In some cases they acted as gullies, along which the water could easily run; in others, especially in the coal measures, they acted as clay dykes, where the water was stopped. Sometimes two porous formations of different ages were brought together; and so the fault established a connection between rocks otherwise distinct. It was not difficult for engineers to note these instances; and he believed that in that Institution there were means of publishing points of the kind briefly.

One other point he desired to refer to, which came under

his notice lately, and which he thought was, probably, rather uncommon. Possibly some of those present might throw some light upon it, and give other cases. He referred to the sinking of a well increasing the supply of neighbouring wells. It struck him at first as being a very odd thing, but in this case the wells of the district were most shallow, and got their water from the shallow porous formations; the new well went down to a lower bed in which the water was subject to a higher pressure; the water thereupon rose in the well, and there being more water than was wanted it overflowed, and so added to the supply of the neighbouring wells. Of course, if much water was wanted and the well was pumped, the water would no longer go into the neighbouring wells; or if the well were tubed all the way down, the neighbours would get no benefit; but this was a case in which they wanted very little, and the new well yielded a large supply, and so the surplus water went to augment the supply of adjacent shallower wells.

Before concluding he would call attention to the Index Map before them, which showed the area now published by the Geological Survey. With the exception of some maps in the north of England, the ordinary geology of the country was now published; the drift-deposits of all the east of England and of a considerable area in the north of England were published, and the Drift Survey of the rest of England was in progress.

Mr. Peregrine Birch (Associate) said that almost every speaker upon the subject had referred to the vastness of this question. It was really so wide that he must congratulate Mr. Grantham on having been able to elaborate such a very instructive Paper without touching on anything speculative or controversial. In that respect,

the Paper was not calculated to provoke much discussion. He (Mr. Birch) would confine his remarks to one branch of the subject only—viz., "the machinery for raising water in small quantities."

The Attorney-General had asked Mr. Grantham why he had not mentioned turbines, which he seemed to think might be very useful in supplying mansions or for small water supplies. He (Mr. Birch) held a different opinion. He had occasion, lately, to supply his house in the country with water, of which he wanted 1,400 or 1,500 gallons a day. There was water enough, he thought, in the brook to raise that quantity. He did not wish to use the same water for drinking as for his motive-power. It occurred to him that a wheel or a turbine would be the right thing, for he had heard that a ram using one kind of water and pumping another kind did not answer. He went to several turbine-makers, who gave him designs, but refused to hold themselves responsible for the results. This convinced him that, although a turbine would act well on a small scale, it must be actively watched and attended to, or it was apt to get out of order. For instance, the tightening of a gland, or the presence of dirt in the working parts, or a want of lubrication increased the resistance so much that water-power which was quite sufficient when everything was going well, was rendered useless by a little neglect. He, therefore, went back to a ram; not one which pumped its own dirty water, but a compound-acting ram, which pumped water from an uncontaminated well near the brook which drove it, and he was very pleased with the result. The ram worked with an efficiency of about 70 per cent., which was a great deal more than could, practically, be got out of any turbine, especially if working on such a small scale. In situations where it was impossible

to get a well close to the brook, an artificial well could always be made by forming a sump, and admitting the water through gravel or some other effective filtering medium, which was a great deal better than pumping dirty water into the house, and having it filtered there; but in any case, unless the water were drawn from a very unquestionable source, he should deprecate the use of a single-acting ram.

A wish had been expressed by Mr. Topley that engineers would give some information as to the effect of faults on water-bearing strata. He (Mr. Birch) thought that a great deal of misapprehension existed concerning faults. He differed on this subject from many gentlemen whose positions enabled them to influence engineers and surveyors very much. He knew that in some cases faults were supposed to exist in the chalk because water was found in one place at one level, and in another place at a very much lower level. This was not necessarily due to a fault at all, but simply to the excessive pumping of water in one place as compared with that in another. If the circumstances of the chalk-water under London, where there were a great number of steam-pumps at work, were considered, it was not necessary to establish the existence of any fault to prove that the water would be at a much lower level under such conditions than at places near the edge of the basin, where, practically, no pumps were in existence.

Mr. J. Lucas (Professional Associate) said he should like to draw the attention of the Members to a system of collecting rain-water by means of an artificial catchment area formed of sheet zinc, constructed by Mr. Gardiner, of Goring, which was at present in use at a little hamlet about two miles east of Goring, in Oxfordshire. The catch-

ment basin was inclosed by a railing, and the water ran into a tank, out of which the cottagers drew it as from an ordinary draw-well. He had met with no other instance in actual work.

With regard to the difference of level alluded to by the last speaker, near the place he had named, there were, within half a mile of each other, two wells which showed a difference of 100 ft. in the level of their waters, and his own impression was that the upper well went down to some stratum that held the water in the chalk up to a higher level. He consulted on the point with Mr. Jukes-Brown, of the Geological Survey, who had recently remapped the whole of that area in respect of drift and the hard beds that occurred in the lower chalk, and from his investigations he was convinced that the water in the upper well was not upheld by any such stratum. It was situated on the water-ridge of the Chiltern range, which maintained a high altitude till within a very short distance of the Thames.

On page 132 Mr. Grantham had said :—"Commencing "with the tertiary formation, the permeable Bagshot beds and "the Thanet sands contain the softest kind of water." This might be so; but it had been his (the speaker's) misfortune lately to sink a well on the Enfield Estate of Trinity College, Cambridge, within two miles of which the New River Company had lately sunk a well, with the result that, although the section came out within a foot of what was anticipated, the head of the chalk-water had been so drawn down as to practically deprive them of their supply, and instead of chalk-water they obtained water containing a quantity of grey sand. The quality of the water was really indescribable. The "total solids" contained was about 132 grains to the gallon, the hardness was 33° or

34°, and amongst other things there were present 12 grains of magnesia to the gallon.

That case afforded an instance of how a measure, like the Public Health (Water) Act of 1878, which was in itself well-meant, might defeat its own objects. It intended to provide that every new house should have a proper supply of water before it was inhabited; but, as a matter of fact, the tenant was in a position to defy the Act with impunity. Here was a house built at considerable cost, for which no rent could be received without a certificate that a supply of water had been furnished to it; but, as a matter of fact, although water was supplied in sufficient quantity, yet, as this water contained 12 grains of magnesia per gallon, the tenant was in a position to refuse to take the water, and, as far as he could see, no one could make him pay any rent. In the meantime he had the opportunity of going on using similar water from a well at the old farm which was brought up to his house, simply because it was an old well which had been used for a number of years, and so was protected from analysis and condemnation.

On page 138 Mr. Grantham referred to the Porter-Clark and Atkins processes for softening water. He had lately had an opportunity of going over the new Southampton works, now nearly completed. There, instead of mechanically cleaning by the "revolving-brush" system, they used perforated pipes, which could be raised or lowered between the cloth strainers, so that the carbonate of lime, or lime-deposit, was washed off; and there was also an arrangement for flushing the sheets from the inside, so that the water which had been passed through could return, and so thoroughly wash the sheets.

On the occasion of the previous discussion Mr. Pattisson called attention to the fact that "there was no general "water map of the kingdom showing the underground

" water. He thought that such a map would be an " immense gain to all dealing with the water-supply " question in the country, and it ought not to be difficult to " make one with approximate accuracy." He then went on to mention the admirable maps of the Geological Survey—maps which were well known as drift maps. He (the speaker) had had considerable opportunity of investigating the maps published, and also many which were in manuscript, and he could say that in many instances they were exceedingly accurate. He knew, from districts much nearer to London than those referred to by Mr. Topley, that the lines drawn on those maps might be thoroughly depended upon as boundaries of the drifts. But the drift itself had a trick of varying very much in point of character. A bed, which in one place was exceedingly clayey, suddenly merged into pebbles and stones, and, in fact, it was practically impossible to separate the two drifts; therefore, as regarded the permeability of that part of the drift, there might be a great difference between any two places. He might say, with regard to water maps, that he had spent many years in constructing hydro-geological maps which were known to Members of the Institution, and he hoped that the day would come when the Geological Survey, or some branch of it, would take the subject in hand with the view of giving water maps of all the water-bearing strata of England.

Professor Henry Robinson (Fellow) endorsed the opinion of the Attorney-General that the subject afforded a wider field of discussion even than that embraced by Mr. Grantham's Paper, which itself was wide enough. What Mr. Birch had said as to small motors was perfectly true. He (Professor Robinson) had, as one of the Jurors

at the Health Exhibition a few years ago, investigated the motor referred to, and had approved of such an appliance by which foul water could, in many cases, be utilised for motive-power. He was glad to find that it had since been adopted in practice.

One part of the subject which he thought the Institution should, by means of their "Transactions," make widely known was the fact that they had before them a state of things in reference to the rainfall which would cause great inconvenience and trouble to a large number of people during the coming summer. Those who depended for their water supply on deep-well sources, would have to meet an unusual drought. No amount of rainfall during the next few weeks would be able to find its way in time to be useful to the lower measures from which the deep springs emanated; and it behoved all those who were interested in the matter to direct their attention, before it was too late, to some means of supplementing the water supply that existed at the present time. It was a matter of such great practical importance, that he was sure the Members present who were called upon to advise in reference to the water supply of large houses, or of villages and towns, would give it their best attention. A large number of persons would congregate in country houses this summer, and, as much of the enjoyment of a country house depended on a good water supply, would find themselves this year, in all probability, deprived of a large proportion of it. An enormous rainfall sometimes occurred, producing great mischief in the form of floods; and it was advisable that the authorities should be influenced in the direction of storing (by means which should be well considered) the surplus water for the benefit of the community, at the same time preventing the damage caused by floods.

He was sure that Mr. Lucas and Mr. Topley would agree with him that well-considered means of the kind had been often suggested for preventing the mischief arising from floods in the low lands, and at the same time storing in the high lands the excess of the rainfall, which was being fought for, more and more every year, by the large towns. It seemed probable that, in the course of time, the small communities would be deprived of their natural watercourses, or of the rainfall which they had hitherto enjoyed; and those who controlled the affairs of the large towns would seize on all supplies, and place the small villages either at the mercy of the large towns, compelling small consumers to obtain their supply from them, or else absolutely depriving them of all supplies. He thought it very important for an Institution like this to call the attention of all local authorities to the necessity of averting such a very serious and increasing evil and danger.

With regard to the question of utilising water-power, there was one point to which he must refer—namely, the utilisation of water, not merely for drinking purposes, but also as a source of motive-power. He had contributed to the current volume of "Professional Notes" a suggestion, at some length, as to the possibility of utilising water-pressure for the distribution of power for various agricultural operations going on on large estates. It seemed to him that there was a very wide field open for this, not only in the case of large agricultural areas, but also on private estates.

Mr. H. D. Pearsall (Visitor) proposed to make a few remarks with reference to the best kind of motor to be used, when a motor was necessarily used at all.

Reference had been made to hydraulic rams, and there could be no doubt that in a very large number of cases

they were most suitable and convenient, but it was well known that they were not available except for small quantities of water. Turbines also were very useful under some circumstances, but when used for raising water there were three losses of efficiency. The turbine could not work without a loss of 30 per cent., to begin with, and, as it must be connected by gear with pumps, there was another loss of 10 per cent. in the gear, and a still further loss in the pumps of at least 20 per cent., so that the net efficiency of the combination would, under the best circumstances, hardly exceed 40 per cent., and very often be much less. The hydraulic ram had the advantage of turning to account the water-power, to raise the water directly without the intervention of any gear, and without any double or treble loss; and some new machinery at St. Mary Cray, to which he proposed to draw attention, acted on the same principle, although it was not, strictly speaking, a hydraulic ram. The largest hydraulic rams successfully used raised about 20 gallons a minute, but the machinery he referred to raised about 100 gallons a minute. He apprehended that, although the subject of the Paper was village supply, all water supplies that were not very excessive came within the scope of the argument, and it might be of some interest to the Institution to know of any new plan. The peculiarity of this new machinery was the fact that the ordinary shock and concussion, which most people regarded as inseparable from the hydraulic ram, did not exist. There was a very strong prejudice against hydraulic rams on this account, and in the text-books the authors spoke of them as working by means of a blow.

As a matter of fact, and as the result of detailed investigations which he had made, it was established that there was no necessary connection whatever between the

blow and the action of the ram. To prove this in a very simple manner he adapted an ordinary steam-engine indicator to a hydraulic ram—an experiment which, he believed, had never been made before; and though ordinary rams with which he experimented did work with a blow great enough to break two or three indicators, in the new machinery referred to, which worked on the same principle as a hydraulic ram, but was differently constructed, there was no such blow on the indicator at all, and he succeeded in taking a diagram, precisely similar to those taken of steam-engines, in which the pressure-line rose in the most gradual and regular manner. The possibility of doing this being established, he thought it would be found that there was very much more scope for all machines of that class than had hitherto been believed.

The efficiency of these machines was as much as 70 per cent.

Mr. R. W. P. Birch (Associate) asked whether the indicator was applied to the driving water or to the driven water of the ram.

Mr. Pearsall replied that it was applied to the driving water, just between the waste-valve and the valve at the mouth of the air-vessel or pressure-chamber. Directly the waste valve shut, the water created more pressure in that space—greater pressure, in fact, than there was in the air-vessel, so that the inlet-valve below the air-vessel was forced open; and in that space, with a ram constructed in the ordinary manner, there was a very sudden and violent rise of pressure, practically equivalent to a blow. But the curious thing was that it was only an accidental result of the way in which rams were constructed. It was proved by

actual experiment that there was no need for it, and it was not associated with the principle of the machine.

Mr. A. Le Grand (Visitor), referring to the maps which Mr. Topley had exhibited and explained, said that he knew of two cases where drift-deposits had entirely upset all previous calculations. In one instance, in Warwickshire, an ordinary map showed drift, but gave no indication as to what was below. The common opinion was that coal existed there; but, as a matter of fact, a boring through no less than 200 feet of drift reached the keuper marl. He knew of another case at Wood Norton, in Norfolk, a mile from an outcrop of the chalk, where the chalk was perfectly dry in a quarry. About 70 feet above the level of that outcrop the whole district, for a considerable distance, was nothing but sand-drift, and yet, though the site of Wood Norton was so much higher than the chalk, the sand-beds appeared to be in hydraulic communication throughout, and the water was standing up to within 15 feet of the surface. Eighty-one feet had already been penetrated, but at present it was still unknown to what depth a boring must go before it struck the chalk, though the chalk-beds were supposed in that part to run fairly level.

He himself had been connected for many years with the system known as the Norton "Abyssinian" Tube-Well which had been found to answer well both for large and small supplies, and to be free from danger of contamination by surface water. The depths to which they were driven ranged from 15 to 150 ft. The greatest depth to which he had yet driven the tubes was 157 ft., and in the case of villages, two or three of these tube-wells (according to the size of the village) could be driven, and each villager allowed to pump his water fresh. Frequently, in villages, there was plenty of water, but it was all, more or less,

contaminated with surface soakage. At no considerable depth below this body of surface water there was often an abundant supply of pure water, but the difficulty on the old plan was to get it, it being necessary to dig through a body of water sometimes so copious as to render attempts at getting below extremely difficult and very expensive. Even when the water was reached there was the further difficulty of shutting out the upper water. Now, the Abyssinian tube-well possessed the advantage that it did not loosen the ground, but, on the contrary, compressed it more tightly, and with the result that the water was brought up in a state of perfect natural purity. At Sprouston Hall, Norwich, there were sandbeds—the greater part of Norfolk being covered with these drift-beds,—and it was necessary to drive 111 feet before reaching the pure supply in the chalk, the work occupying about a week. The tube-well was subsequently worked by a little donkey-wheel, and the supply pumped amounted to about 400 gallons an hour. Again, at Blo-Norton, near East Harling, there was drift, and all the water in the local wells was condemned as dangerous for drinking. With about six hours' work they drove a tube-well, 54 feet, through the drift and the chalk, and struck water which rose to within four feet of the surface. About 400 gallons an hour were pumped from the well, and the cost of the work was inconsiderable. Of course economy in outlay was much more important in connection with small rural supplies than in the case of mansions, where it was not such a great consideration.

Mr. W. Woodward (Professional Associate) considered that the London surveyors were indebted to Mr. Grantham for his excellent Paper on Water Supply. Some time ago he collected the rain-water of a large house in the country, and,

as Mr. Mann did, passed it first into a brick reservoir lined with cement, in which he placed a dip-stone, with gravel and sand for filtering the water, which afterwards passed into the tank; and he believed the water pumped from that tank had proved extremely pure.

But his principal object in rising was to call attention to the probable deficiency of water, during the coming summer, in London and elsewhere. In the Paper which he read in that room, on the reconstruction of London, in February 1886, he referred to the question which had now cropped up again, particularly in a letter written by Mr. Lever, in the *Times* of Saturday last, on the utilisation of sea-water for street-watering and fire-engine purposes. The employment of sea-water for these purposes would result in the saving of an immense quantity of potable water, and, as Mr. Lever had shown, it would not be difficult to put the project into execution.

Mr. G. F. Harris (Visitor) said that he was principally interested in this subject from a geological point of view.

He agreed with Mr. Topley, in his opening remarks, concerning the advisability of hydrogeological maps constructed so that the underlying formation could be seen at a glance, but he thought that such maps should have a practical rather than a purely geological object. He was quite willing to admit their value, but as they stood they were of very little use, he thought, to the practical man in regard to questions relating to water supply. In maps which he had constructed for his own use, he had arranged that beds which were very pervious, pervious, partially pervious, and impervious should each have a distinctive colour, so that at a glance one could see the kind of soil over which a river flowed, and whatever might otherwise affect the water supply of the district. He had also indicated on his maps,

so far as he was able, the positions of the orifices of wells, their depths, and the kind of material they passed through—not from a geological, but purely a water-supply point of view. In cases where he had been able to obtain the details he had put the depths at which the water-level stood, the rainfall, and any information of that kind. He had also, in many cases, ascertained the gaugements of the rivers, and, in fact, had incorporated anything which he thought likely to be of use. Of course those maps had taken him a long time in construction, but he had already done a great portion of those for the south-east of England, more especially in the tertiary districts. He had, however, little hope that they would be of much use to him, or that the Legislature would ever grant sufficient money to publish hydrogeological maps.

With regard to the chemical qualities of water, it had been said, in the course of the discussion, by the Attorney-General and other speakers, that chemists did not express themselves in language very intelligible to outsiders. In his opinion the principal thing was not so much to ascertain the total solid contents after filtration, as to find the amount of organic impurity. This was usually divided under two heads—viz., organic carbon and organic nitrogen, the organic carbon being the most deleterious, and both those products representing the present sewage-contamination of the water. If asked what was good water, he would say that it should not show at the most more than four (some said even three, but that was, perhaps, rather a small proportion) grains of organic impurity to the imperial gallon. In the shallow wells of villages it was difficult to get such good water, and the inhabitants must suffer in consequence. Chemical analyses were given, showing the presence of nitrites and nitrates and ammonia (which were not organic, but mineral substances). They showed, according to Dr. Frankland, the "previous sewage-contamination"—that was to say, if water

from a well coming, say, from the chalk, were analysed, the amount of nitrites and nitrates existing would be found to be much higher than from river-water, such as the Thames; and Dr. FRANKLAND assumed that the presence of nitrites and nitrates was largely owing to the fact that sewage, at one time or other, had come into contact with the water, and they thus represented organic substances in an oxydised condition. There was no harmful effect in the mineral nitrogen—nitrites and nitrates were not at all noxious in small quantities,—but at the same time it was assumed (and he said assumed advisedly, for it was not proven) that they had the power of harbouring dangerous disease-germs in the form of bacteria. He thought it was clearly established that organic matter in water after filtration was decidedly a pollution, but it was only theory to assume that mineral nitrites and nitrates were deleterious, as these latter might be derived from beds from which the water had sprung.

One speaker had stated that he had often found considerable difficulty in getting rid of surface-water—*i.e.*, he knew there was a better source of water underneath, but had, as it were, to go through an upper stratum of other water before reaching the lower, and the difficulty of getting through the upper stratum was, in some cases, almost insurmountable. He knew of a case in which a well had recently been sunk by freezing the water in the upper beds all round that part of the bore-hole by dropping chemicals down it. He did not, at the present moment, remember the exact chemicals which had been used, but he could easily ascertain if any Member would like to know. The water was frozen all round, and the bore was driven right through it (as through a hard rock) down to the lower stratum. That was a fact of both practical and scientific interest.

Mr. Grantham, in reply, said that he must first express his thanks to the Council for giving another opportunity for the discussion of his Paper, and also to those Members who had spoken, for the valuable and useful information they had given on the subject.

The observations of the various speakers had gone rather in the direction of supplementing than of criticising his Paper, thus relieving him of the necessity for more than a few observations in reply.

Though he agreed with Mr. Mann's observations with regard to a rainfall supply for small houses and cottages, he questioned whether a mansion, such as he described, could be supplied entirely with rain-water, and in the case which Mr. Mann had mentioned on the present occasion, he rather understood him that only drinking water was supplied from the rain from the roofs. The deep wells were the best sources of water, and the least liable to contamination, but, as Mr. Mann had said, even the water in deep wells in certain formations—in mountain limestone, for instance—where water did not soak into the rock, but went down into its crevices and fissures, was sometimes contaminated, and so it was in the chalk, though in a lesser degree.

He was obliged to Mr. Topley for the information he had given about the new geological map. The ordinary one-inch geological map would still be useful as regards the deeper wells, but for the shallower wells, in particular, the surface maps were immensely valuable.

The Attorney-General had asked on the previous occasion for information as to the best machinery for raising water in country districts. It was almost impossible to lay down any general rule, independently of the circumstances of each particular case. He thought, however, with Mr. Birch, that the ram was, perhaps, the most efficient means of raising water where there was sufficient supply and fall;

but, where there was no fall, a gas or hot-air-engine might be preferable to a steam-engine. The hot-air-engine would be used, for instance, where there was no gas. Where there was gas, the gas-engine was cheaper, as it required less attention than a hot-air-engine. But, as he had said, no general rule could be laid down.

An instance had been mentioned by Mr. Lucas in which he got very hard water in the Thanet Sands, but he did not understand him to question the truth of the statement in the Paper that in the Thanet Sands and Bagshot Sands some of the softest water was to be found. In that case he would suggest whether the Atkins process he (Mr. Lucas) had described would not be available.

With reference to Mr. Woodward's suggestion, there would be no difficulty in bringing sea-water to London. The difficulty lay rather in finding room under the streets for the additional pipes and mains for distributing it.

The boring-tool (exhibited) which his friend Mr. Edward Jackson would explain, was invented by the foreman on the Brading Harbour Works. It had been used on the opposite side of the harbour at St. Helen's, and also for getting water from the lower green sand, on the south side of Ashey Down, for the Ryde Waterworks.

In confirmation of Professor Robinson's remarks as to the predicted scarcity of water, he would read a letter from Mr. Baldwin Latham, whose opinion was so valuable on such a point. After regretting his inability to attend the Meeting, he said:—"The question of water-supply is of "very considerable importance, as from my observations, "carried on over the face of the country, I find that the "stores of water in the ground are very low; a condition "which is likely to lead to considerable trouble and ill-"health during the present year. The stores in the district "supplying the Thames are not so low as they were some

"years ago." This showed that the anticipated scarcity had a foundation of fact.

The CHAIRMAN said that the Institution was under great obligation to Mr. GRANTHAM and the various speakers, for the very interesting and instructive discussion which had taken place on this important subject. He was surprised to find that so little use was made of windmills for raising water in England. In America, through the length and breadth of which he had travelled, windmills, employed for this purpose, were to be seen in every direction. A neighbour of his, Mr. STEVENS, the Member for Hackney, who bought an estate in the highest part of Wiltshire, had erected a windmill for pumping the water on to his farm. It was a perfect success, and he was quite satisfied that many land-owners would follow his example.

He observed that several speakers referred to the difficulty of preventing the pollution of the rain-water collected from the roofs of buildings, and the large amount of filtering it consequently needed to fit it for domestic consumption. This pollution was easily prevented by means of a contrivance invented by Mr. CHAS. GAY ROBERTS, which had been exhibited in that Hall, and which automatically separated the first washings from the roofs from the subsequent fall, and allowed the clean water only to pass into the storage cisterns. All the surface dust and dirt was thus kept out of the tanks.

He had had a curious experience with an hydraulic ram, which would interest the geologists present. He was agent for an estate on the borders of Wiltshire, where there was a ram driven from a lake which was supplied from a spring from the lower chalk. They had built a farm-house about 1½ miles from the lake and sunk a cellar, which was perfectly dry. One morning the resident agent begged

him to come down to the farm. The ram had refused to work, and on inspecting it they found that the whole of the leatherwork, and all the stonework round it, was covered with spicules of carbonate of lime. This had never happened before, though the ram had been working for some years. They changed the leather, and the ram immediately began to work again, but the carbonate of lime began to re-accumulate, and the ram absolutely stopped in the course of five or six hours. While pursuing their investigation a messenger came to tell them that the cellar of the house, 1½ miles off, had become full of water. The two events coincided. There had, evidently, been a slip of some kind (the geological arrangements there were of a most interesting character), which had thrown a large quantity of water containing carbonate of lime into the lake supplying the ram. They cut a drain to carry it away, and had not been troubled with it since, and the ram had since worked, and was now working, in its normal fashion.

There was one other point to which he would like to refer—the so-called mist-ponds in some elevated parts of the country, which gave a wonderful supply of water for cattle. On one of the hills of the great chalk escarpment, between Warminster and Shaftesbury, ranging in some places nearly 1,000 ft. high, they made a cattle mist-pond, which they filled up to the brim with snow. Not a drop of water flowed into it, and during the whole of the past dry summer this pond afforded a supply of water sufficient for all their cattle. These mist-ponds, in some marvellous fashion—as he understood it by the excess of condensation over evaporation—did manage to obtain a quantity of water far beyond the needs of the cattle they supplied.

The Meeting then adjourned.

Paper 152.)
No. 257.)

POINTS IN THE LAW RELATING TO ANCIENT LIGHTS.

By DUNDAS GARDINER (Barrister-at-Law).

Read at the Ordinary General Meeting of The Surveyors' Institution, *Monday, March 5th*, 1888.

WILLIAM JAMES BEADEL, M.P. (PRESIDENT), IN THE CHAIR.

When I had the honour of reading a Paper on this subject before this Institution, some twelve years ago, I took occasion to observe that this branch of law had become of great interest and importance by reason of the extensive improvements and reconstructions which were then taking place in many of our towns, but especially here in the Metropolis. Those improvements and reconstructions have since that date proceeded with even greater activity in all parts of London, and as old leases have run out lofty and stately buildings have replaced, and are replacing, the more modest habitations of a former period, situated in thoroughfares which were planned at a time when no one dreamt of the expansion to which the trade and population of this great city have attained, so that the old houses and buildings were placed in such proximity as to give but a scanty allowance of air or light to their occupiers, and far below the requirements of our present needs. In replacing, therefore, the old buildings by their new and imposing successors the architect and surveyor has to be careful not only that he respects the rights of his neighbours to the enjoyment of light, but that he also preserves for the new structure the rights to light which belonged to the old.

The questions which arise out of these considerations belong peculiarly to the Members of this Institution, and I propose shortly to bring under your notice the principles which should guide you in the advice you give to your clients as to what they may do and what they may not do when erecting new buildings on the site of old ones, and as to what the owners or occupiers of old buildings may claim and what they may not claim when new buildings are rising around them.

In my former Paper, which you will find in the 8th volume of the "Transactions" of this Institution, I pointed out the three ways in which the right to light was obtained; but of the three I propose, on the present occasion, to deal only with the third—namely, the statutory right given by an Act of Parliament passed in the second and third years of William the Fourth, known as the Prescription Act, since very few cases of right to light depend upon any other considerations than the interpretation of that statute.

The sections of the Act which relate to the acquisition of the right to window-lights are as follows:—

Section 3.—"When the access and use of light to and "for any dwelling-house, workshop, or other building shall "have been actually enjoyed therewith for the full period of "twenty years without interruption, the right thereto shall "be deemed absolute and indefeasible, any local usage or "custom to the contrary notwithstanding, unless it shall "appear that the same was enjoyed by some consent or agree-"ment expressly made or given for that purpose by deed or "writing."

Section 4.—"Each of the respective periods of years "hereinbefore mentioned shall be deemed and taken to be "the period next before some suit or action wherein the "claim or matter to which such period may relate shall have "been or shall be brought into question, and no Act or other

" matter shall be deemed to be an interruption within the " meaning of the statute, unless the same shall have or shall " be submitted to or acquiesced in for one year after the " party interrupted shall have had or shall have notice there- " of, and of the person making or authorising the same to be " made."

You will observe that the statutory right to light can only be obtained as belonging to some house, workshop, or other building. There is no property in the light which falls on a man's land unless that light is used or enjoyed in some house, workshop, or other building; but if there has been an enjoyment of light for some house, workshop, or other building for the full period of 20 years, then the right to the access of such light becomes absolute and indefeasible, except in a case which I will at once mention, and which it behoves you to have in mind. A man cannot acquire rights against himself, nor can he derogate, as lawyers call it, from his own grant—that is, having granted anything by deed, he cannot control the use of the thing granted beyond the express words of the grant; and therefore, if a house is sold, since the grant of the house carries with it the enjoyment of everything which at the time of the grant appertains to the house, the vendor cannot build on his own adjoining land so as to interfere with the right of access of light to the house, nor can any subsequent purchaser of the adjoining land do so; but if the vendor sell his adjoining land, retaining the house, unless he is careful to introduce a provision into the conveyance of the land that the purchaser shall not interfere with the access of light to the windows of the house, such purchaser may build on the land sold so as to interfere with or even totally obscure the access of light to his, the vendor's, house. This was decided so far back as the reign of Elizabeth and has been repeatedly followed, though it was remarked not long ago by Vice-Chancellor Kindersley that

the principle, if pushed to its utmost limit, would work considerable injustice. It therefore behoves you, in negotiating sales of houses while the owner retains the surrounding land, or of land while the owner retains a house adjoining, to keep this state of the law in mind, and guard against its operation to the detriment of your client; and either an express power to build in any way on such surrounding land should be reserved, or the right to light should be expressly given by the grant; for it has been lately held that where a house was granted with all rights, except rights, if any, restricting the free use of the adjoining land, or the conversion or appropriation at any time thereafter of such land for building or other purposes, obstructive or otherwise, and the right to light had been enjoyed uninterruptedly for 20 years, such rights became indefeasible, and that, notwithstanding the exception, no building could be placed upon the adjoining land which would in any way interfere with the access of light to the house which had been previously granted. I feel bound to say that in this case the words "at any time thereafter," which occur in the restriction, do not seem to have received that consideration and weight to which I think they were entitled.

The question, what is meant by "other building" has lately, and I think for the first time, come under discussion in the case of *Harris* v. *De Pinna*, 33 Ch. Div. 238. The plaintiff was a timber-merchant, and stored his timber on one of those massive stages with which you are familiar, and the timber was so stored as to leave apertures through which light and air passed and lighted the passages between the timber. It appeared that these apertures and passages varied from time to time according to the nature and quantity of the timber stored. The Judge of first instance held that such a structure was not a building within the meaning of the Prescription Act, and that, consequently, although

for more than 20 years the plaintiff had enjoyed the access of light to these apertures over some vacant ground belonging to the defendant, he had no right to restrain the defendant from building upon the vacant ground, although by so doing he obstructed the access of light to the apertures. The Judge suggested the following test which it may be useful for you to know, although he admitted it was not a decisive one, "Would this structure" (the timber-stage I have mentioned) "be such as would put a reasonable man, without "special knowledge of the law, on his guard against the "acquisition of the easement of light, so that he might, "thus being put on his guard, protect himself against the "acquisition of the right? It appears to me that it would "not." He says it is not decisive, but I think it affords a reasonable test whether or not a construction to or through certain parts of which light passes can be considered a building in respect of which the easement of light can be acquired.

The Court of Appeal held the same view as the Judge below—that the plaintiff had no right to restrain the defendant from building on the vacant land, but they affirmed the decision upon a different ground. They declined to endorse the view that the timber-stage was not a building within the meaning of the Act, but held that the plaintiff had not shown the access of light to and for the structure—to adopt a neutral term—had been actually enjoyed for 20 years. The Lord Justice COTTON's judgment contains this passage, to which I shall have again to refer in a subsequent part of this Paper, "In my opinion, what is necessary to show, "under Section 3 of the Prescription Act, as regards the "building, is not only that the building has, in some way "or other, always enjoyed light, but that it has done so by "a definite access for the statutory period. All that you "protect is the access of light through the windows, which

" have been substantially in the same place where they are " at the time when the action is brought, for 20 years, and " in my opinion it will not do, in order to establish a right, " to show that though at some time light did not come in " through a particular access, at other times it did, and that " sometimes it came in through one and sometimes through " another opening which there was in the structure of the " building which would admit light"; and in another part of his judgment the Lord Justice says, "in my opinion it " was necessary for them," that is, the plaintiffs, "to show " not only that a particular building has for 20 years been " one in which light has been enjoyed, but that the light " which has been enjoyed has come in during that period " by a definite access—by the same access—in order to " protect that access of light, and in order to prevent any- " one from putting up a building which would prevent light " coming through that definite access through which light " has been so long enjoyed."

The Lord Justice BOWEN, in his judgment, says:—"Our " difficulty here has been that really we have to decide " a question of right about each of these frameworks, " which I will call for the purposes of argument apertures, " to consider with regard to each of them whether it is one " in respect to which a right to access and use of light has " been acquired. I quite agree that it does not follow that " because you have not for one moment or another in each " year happened to enjoy the full flood of light which " would pass through an uninterrupted window, that still " there may not have been a continuing enjoyment which " would satisfy the statute; otherwise a man could not pull " down his blinds without fear of losing his right to light. " One must look at the whole case and see whether there " has been a continuous enjoyment for twenty years. But " the difficulty is, that in applying our minds to each

" window it is impossible for us to say that we are satisfied " that, as to any one of the apertures or frames, there has " been a continuous enjoyment of any definite amount of " light which has been interfered with. All these windows " have been rolled together, so to speak, in the affidavits, " and we are met with general affidavits that the access " and use of light has been interfered with. We cannot " consider a case in that vague way: we must give our " minds to each question, each issue, of the access of light. " The plaintiffs, therefore, fail to make out their case as to " light."

You will observe that Lord Justice Bowen speaks of the access of light through a definite aperture in a much less decided way than does Lord Justice Cotton, and Lord Justice Fry rested his judgment entirely on the weak evidence which was given that the access to and use of light on the structures had been enjoyed for 20 years.

I cannot help thinking, with all respect, that the reasons given for their decision by the Court of Appeal on the point they took is open to question.

It may well be that this timber-stage was not a building within the meaning of the Act, in which case the original decision would be correct; but the Court of Appeal declined to say that such a structure might not be a building within the Act, and if it had been clearly proved that apertures had been systematically left in the storing of the timber for the purpose of lighting passages between the timber, and that the light coming through those apertures had been used for more than twenty years for the purpose of enabling the owners or purchasers to select from or discriminate the timber stored, it seems to me that the fact that those apertures had been changed ought not to have affected the decision. The Act says nothing about either windows or apertures; the words simply are, " access and use of light to

or for any dwelling-house, workshop, or other building," not through any window, door, or aperture, nor does the well-known term "ancient lights" occur in the Act. Now we may readily conceive manufacturing operations being carried on in an open space at the top of a house with a covering above, shut in on three sides, with sliding shutters on the fourth, for which operations light is necessary. Yet because the opening through which the light came varied by reason of sliding shutters being placed at different times in different positions, in the opinion of the Court of Appeal no right to light could be acquired. Try it by another instance. A room used for thirty years for inspecting and storing goods of delicate shades of colour, and having a long window with sliding shutters, the position of those shutters continually shifted to prevent sunlight affecting goods in different parts of the room. It would, of course, be impossible to prove that the same cone of light had uninterruptedly for twenty years entered the room through any one particular square inch of the window, and this being so, if the view of Lord Justice Cotton is correct, no right to light could be obtained. I think, therefore, that the question whether a structure of a nature at all similar to the one in *Harris* v. *De Pinna*, with apertures used to admit light, but the position and size of which vary from time to time, is not yet finally settled. One other point of practical importance should be mentioned with reference to the third section. The enjoyment necessary to establish the right is to be for the full period of twenty years without interruption; but the fourth section says that nothing shall be deemed an interruption unless the interruption has been submitted to or acquiesced in for one year after the party interrupted has notice of the interruption and of the person making or authorising the same to be made, so that the right to light may be acquired by uninterrupted enjoyment for 19 years and a day; for if at the

end of that period an interruption is made, although the party injured cannot immediately take steps to abate the interruption when the full period of twenty years has elapsed, he can then sue the interruptor and succeed, because he proves twenty years' enjoyment without interruption submitted to or acquiesced in for a year; for he has only submitted to it for 364 days, which the fourth section says is no interruption.

We will now endeavour to ascertain the extent of the right which has been acquired by a twenty years' enjoyment. This point you have to consider in ascertaining to what extent a new building may interfere with the existing access of light to any neighbouring house or workshop. While the right to light rested on an implied grant or agreement from the adjoining owner it was held that that grant or agreement related only to the state of things which existed when it was made, and consequently it only insured sufficient light for the purposes for which the building was then used; and in cases where a malthouse had been converted into a parish workhouse, and a barn with openings for light converted into a malthouse, the plaintiff complaining of an obstruction was required to show that such obstruction diminished not the light which then came to the workhouse or the malthouse, but light which would have been sufficient for the original buildings. But since it has been held that an absolute right to light is acquired by 20 years' enjoyment, the possessor of that light is entitled to have as much light as he can want for any purpose for which the building can at any time be used. You will find in my former Paper, to which I have already referred, a discussion of some conflicting decisions on this point, and I have there summed up what I considered the state of the law at that time in these words:—"It must be, however, admitted that "the extent of the right to light acquired under the Pre-

" scription Act is to some extent still unsettled. It is still " uncertain whether, on the one hand, it is an absolute right " to all the light which can enter through the windows " necessary for any purpose whatever, or, on the other, to " only so much light as is necessary for the purpose for " which the premises were originally used or intended, or " for which they are actually used when an obstruction " takes place."

However, in the year 1878 a case occurred in which the opinion of Lord Westbury, Lord Chelmsford, Lord Cranworth, Lord Hatherley, and the late Master of Rolls was adopted rather than that of Lord Justice James, Lord Justice Mellish, and Lord Selborne; for in *Moore* v. *Hall* the Queen's Bench Division of the High Court held that in an action for damages for obstructing the access of light the jury were rightly directed to consider whether the effect of the diminution of light was to make the plaintiffs' premises less available for the business they then were or might thereafter be made applicable, and the Court held that the case I have already mentioned of the malthouse converted into a workhouse had been wrongly decided, and that the law was correctly laid down by Sir William Page Wood and Sir George Jessel in the cases of *Dent* v. *Auction Mart Company* and *Aynsley* v. *Glover*.

Having thus considered the right of the occupier or owner of a house to the access of light, when he has engaged that access through definite apertures for the full period of 20 years, I invite your attention to his rights when he alters his building or changes the position of the windows or apertures. You will find in my former Paper a history of the very singular ebb and flow of judicial opinion upon the effect produced by any alteration in the size or position of the windows or apertures in respect of which the right to the access of light was claimed, and

which culminated in the celebrated case of *Jones* v. *Tapling*, decided by the House of Lords in the year 1865.

For some years, I think, the general opinion in the legal profession as to the effect of that decision was that if any one of the windows of a new building contained any part of any window of the old building, that an action could be maintained for any obstruction to the new window, which would have been an obstruction to the parts of the old windows contained in the new ones. This was an intelligible rule, and was, I think, acted on for some years; but a case of *Newson* v. *Pender*, decided in 1884, has introduced some uncertainty on the authority of one of the judges of the Court of Appeal. To understand this case I have prepared a diagram showing some of the new windows with their positions with respect to the old. The facts of the case are of the usual simple character. An old building pulled down, a new one built in its place, the requirements of which necessitated a considerable alteration in the position of the windows. The shaded parts in the diagram show the old windows.

Lord Justice Cotton stated the question as follows:—

"It was contended on behalf of the defendants, as I "understand the argument, that there was authority which "showed that in respect to all these windows which were "not coincident with the windows in the old house, the "plaintiffs had lost their right, and *Hutchinson* v. *Copestake* "(1) was the case relied upon; whereas upon the other "hand the plaintiff contended that *Tapling* v. *Jones* (2), in "the House of Lords, overruled altogether what was laid "down in *Hutchinson* v. *Copestake*, and that, according to "the decision of the House of Lords in *Tapling* v. *Jones*, the "plaintiffs remained entitled to their legal rights and to the "protection of an injunction in respect of all those portions "of their present windows which were coincident with any

" portion of the old lights in the old house, and correspond " with any portion of the old lights. In my opinion *Tapling* " v. *Jones* did not decide that. That case is reported both " in the House of Lords and in the Court of Exchequer " Chamber; and it was remarked by the Judges that there " the plaintiff had one window in his new building which " was entirely coincident with—except that it had been " reconstructed—the ancient light in the ancient building; " and, in my opinion, all that *Tapling* v. *Jones* decided " was this, that where there is a modern light in a recon- " structed building coincident with an old light, there the " right to be protected was not lost by putting other lights in " the building which were not entitled to any protection from " being ancient lights—that is to say, a neighbour could not, " under the guise of these new lights having been added, claim " to obstruct the windows in respect to which the right to an " ancient light could be claimed; but that was not overruling " the principle to be found in *Hutchinson* v. *Copestake* (1) as " laid down by Lord BLACKBURN and Lord BRAMWELL. In " that case what they decided was, that there was no window " in the new building which was coincident with the old " windows, and therefore there was no light in the new " building which could be considered as a continuation of " any ancient light. *Tapling* v. *Jones* (2) decided that by " constructing new windows, either by the side of or above " or below the ancient light in a reconstructed building, the " right in respect of it was not lost; and I can see no " reason why, when a window is reconstructed which has " within its area the entire area of an old ancient light en- " titled to protection if the building is reconstructed, with that " in its exactly former position, the addition to the area of a " new window which included the area of the old would " destroy the right which would have existed if, instead of " being within the same mullions, it had been an addition

" of a window just by the side of the old window. I under-
" stand the ruling to be that, although there is a portion of
" the ancient light coincident with a portion of the new light,
" yet if the new light does not include the area of the old
" light, or if there is not substantially the area of the ancient
" included in the new, it cannot be said to be a continuance
" of the ancient light, and a plaintiff cannot seek protection
" in respect of the existing windows simply because he has
" got a little bit of the area of the ancient light included in
" the area of the new, which is not a continuance of the
" ancient light. There would be a question as to whether
" the plaintiffs here have at law a right in respect of a great
" many of these windows; but, undoubtedly, there are some
" of their windows which do include the entire area of the
" old lights, and, in my opinion, having regard to *Tapling*
" v. *Jones*, they are entitled, in respect of the area of the old
" ancient lights included, substantially, in the area of the
" new lights, to protection."

Now, I venture to think that the Lord Justice has not accurately stated the reasoning of the judgment in *Tapling* v. *Jones*, which I believe was correctly stated by the argument for plaintiff in the case before the Court. The House of Lords, in *Tapling* v. *Jones*, said, when a man preserves a part of his old window and enlarges it, it is clear he does not mean to abandon any rights he has at that moment. At that moment he has a right to the access of light through every square inch of his old window. He is doing no illegal act, but only what he is perfectly entitled to do in altering his windows. His neighbours may build or put up anything on their land which will block up his new apertures, provided they do not interfere with a right already absolute and indefeasible—namely, that every ray of light which passed through every square inch of the old windows shall continue to do so, and if the thing built or

put up will interfere with that right it is unlawful to build or put it up. That, in my opinion, was the basis of the decision in *Tapling* v. *Jones*, which did not turn, as Lord Justice Cotton holds, on the fact of one entire old window at least being contained within the area of some one of the new windows. The other members of the Court of Appeal did not express the same views as to the decision in *Tapling* v. *Jones* as those laid down by Lord Justice Cotton; but, until the point is set at rest one way or other by some future decision, you must be careful that the windows of a new building should contain the entire area of at least one of the old windows, in order to preserve the right to the undisturbed access of light to the windows of the new building.

The case I have just considered dealt with the access of light to a new building built on exactly the same site as a former building which had acquired an absolute right to the access of light, and such right is not lost even if the site is unoccupied; for, in a case of *Ecclesiastical Commissioners* v. *Kino*, where a church in the City had been pulled down, and the defendant commenced building to a height which would have obstructed the light to the windows of the church if it had been standing, the Vice-Chancellor Hall refused to restrain the defendant's building, saying that the question was, whether the owner of a non-existing building which had, when existing, an easement of light can say, "I had a "right to certain lights in a building which no longer exists. "I can erect another building upon the site of the former "building, and I can place windows in the new building in "the same position as the windows were placed in the "former building, and I am entitled to have the protection "of the Court in respect of light to windows which I may "place in the existing places occupied by the old windows." The Vice-Chancellor further said:—"The plaintiffs come to

" the Court before anything has been done interfering with " the enjoyment of light, and what is sought to be restrained " may never interfere with the enjoyment of light. It may " be that no new building will be erected, and, if erected, " it may be lighted with the roof or otherwise, without " windows occupying the positions of the old windows. It " has not been contended that any action for damages can " now be maintained, and it is not ascertained that any " such action will ever be maintainable. I have not been " referred to any case in which the Court has granted such " an injunction as is now asked for, and counsel have stated " that there is not any such case." The Vice-Chancellor was, of course, strictly accurate in saying no action for damages could be maintained, because as long as the ground was vacant no nuisance could be caused by the defendant's buildings.

The Court of Appeal, however, disagreed with the view taken by the Vice-Chancellor, and granted an injunction, although no action could be sustained. Lord Justice James said:—"It appears to me that when a building in which " there are ancient lights has been taken down, though the " actual enjoyment of the lights has been suspended, there is " nothing to prevent the owner from applying to the Court " for an injunction to restrain an erection which would " interfere with the easement of the ancient lights where the " Court is satisfied that he is about to restore the building " with its ancient lights"; and the present Master of the Rolls stated that the way in which it struck him was this. He said:—"We must assume for this purpose that the building " while it existed had the right to have its ancient lights " unobstructed. The building is pulled down, and it is said " that right is in abeyance. It seems to me that until the " right is abandoned it is as much in existence after the " building is pulled down as it was before, and I cannot

" help thinking that where a man has a legal right which " can only be lost by his abandoning it if he has not " abandoned it, and until he abandons it it exists and is as " much in his possession as ever, although his actual enjoy- " ment of it may be suspended." It is therefore now settled that the destruction of a building entitled to ancient lights in no way suspends the right to access of light, and if there is an intention to rebuild, no one will be permitted to interfere with or obstruct the access of light while the new building is incomplete. When the new building is completed, the new windows must satisfy the conditions which the case of *Newson* v. *Pender*, to which I have already referred, lays down as requisite to preserve the right. The case of *Ecclesiastical Commissioners* v. *Kino* may have a considerable bearing upon a point in the law of lights which, so far as I am aware, has not yet been subjected to trial.

Suppose a house built and before it is 20 years old burnt down, but immediately rebuilt, would the easement of light attach at the end of 20 years since the first enjoyment, or would the 20 years have to be reckoned from the date of the rebuilding? By analogy to the case of *The Ecclesiastical Commissioners* v. *Kino*, the right would seem to attach at the earlier period, and that although there had been a cessation of enjoyment during the period of rebuilding, yet the enjoyment before and after that period would carry with them the intermediate period, for the purpose of establishing the right, if no obstruction was attempted during the 20 years.

Having considered what the right to light is with respect to the windows of new buildings erected on the exact site of old ones which were entitled to that right, let us examine the case of a building which is pushed forward or thrown back from the front of the old building. The case of setting back occurred in *The National Provincial Plate Glass Insur-*

ance Company v. *Prudential Assurance Company.* The plaintiffs pulled down old buildings which were entitled to the easement of light and rebuilt their premises, the upper floors of which were set back some six feet, the plane of the face of the new building being parallel to that of the old, and the windows corresponding on the new face to the position of the windows on the old building. The ground-floor in the old building was lighted by a dormer window of three faces, which derived its light from a well-hole between the buildings of the plaintiffs and defendants. The ground-floor of the new building was the same as that of the old, but lighted by a skylight, partially coextensive with the old dormer window, though of a different shape. The new building was built in 1870. In 1876 the defendants pulled down their premises, and commencing to rebuild to a considerably greater height than their old buildings, the action was brought to prevent their obstructing the access of light to the plaintiffs' new buildings. The late Master of the Rolls, before whom the question of interlocutory injunction came, gave judgment as follows:—

"The first point to be decided is a question of law as "regards those windows which are not in the same plane "as the old windows, but are further back in a parallel "plane. Are those windows protected absolutely? In my "opinion they are not. So far as I am aware there is "no decision exactly on the question, and therefore I "am bound to give my opinion. I do not mean to say "that I should have been of the same opinion if the dif-"ference had been a few inches, or a few minutes of a "degree, or perhaps a degree. I think the old maxim, *de* "*minimis non curat lex*, would apply to these cases as to all "others. But unless the building is substantially a new "house, placed at a very considerable distance from the old "house, of a different shape, and, in my opinion, a new

" house substantially, I think I cannot say that the access " and use of light has been enjoyed with that house, " though it may have been enjoyed with an ancient house " which stood in a different position. I do not forget that " in the case of *Tapling* v. *Jones* Lord WESTBURY read the " section as if, instead of the words ' access of light,' there was " the word ' windows,' and as if the enactment was ' When any " ' window of a dwelling-house shall have been actually " ' enjoyed therewith for the full period of 20 years without " ' interruption the right to such window shall be deemed " ' absolute and indefeasible.' In the present case the " windows are not the same, nor is it the same dwelling- " house.

" I agree that if the plaintiffs had rebuilt the house " and put the windows in the same positions it would for " this purpose have been the same house; but where they " have built a new house in a different position a con- " siderable distance from the old house, and have put new " windows into it, the mere fact that those windows are in " a parallel plane at a greater distance, or in a diagonal " plane at a similar distance, does not make them the same " windows within the Act. I think, therefore, that, " whether the plaintiffs can or cannot now restore the " house or the windows, the windows are not at present " within the provisions of the Act.

" I now come to consider the skylight. I am not " prepared to say that the case of the skylight is by any " means so clear. It is to be observed that, subject to the " question of enlargement, the decision in *Tapling* v. *Jones* is " not decisive on the question. The aperture by which the " light is admitted through the ceiling of the rooms on the " ground-floor is in the same place as the old aperture, and " the room is the same, so that we have for that purpose not

" altogether a new dwelling-house, and I am not prepared to " say that, if the aperture remains the same, the mere fact " that the old aperture was covered by glass in a different " direction ought to affect the question of access of light. " If, for instance, there was a square aperture in the side of " the room which was covered by a projecting shield and was " a window in the sense that there were sides to the shield as " well as a front, so that it was not a flat series of panes of glass, " but a bow, and the bow was removed and replaced by flat " glass, I, for one, should not hold that the right to access " of light through the old aperture was thereby lost. Similar " considerations appear to me to apply to the case of taking " away a top skylight with lights either in lateral or diagonal " planes, or a combination of the two, provided that the aper- " ture which admitted the light remains unaltered, and the " only claim is to access of light by that aperture,—that, I " think, may still be called the same window."

This case went to trial before Mr. Justice Fry, and he came to the conclusion that the buildings of the defendant caused no material obstruction to the access of light to the windows which had been set back, but that the height of the new building did obstruct the light to the ground-floor; and in discussing how far the alteration in the dormer window had affected the right to the access of light to that window, expressed himself as follows :—" It is said that the " access of light to the dwelling-house must be identical, " and that the right claimed and the enjoyment which has " existed must be of access of light through identical " apertures. Now, in its breadth that proposition is not " true, because the case of *Tapling* v. *Jones* has shown that " you may destroy the identical aperture by taking away " the surrounding lines of that aperture, and yet leave your " right to light intact. Furthermore, I find nothing what-

" ever in the statute which refers expressly to a window or " aperture. I find in the statute a reference to the access " of light; and, in my view, the access of light might be " described as being the freedom with which light may pass " through a certain space over the servient tenement; and " it appears to me that wherever, for the statutory period, a " given space over the servient tenement has been used by the " dominant tenement for the purpose of light passing through " that space, a right arises to have that space left free so " long as the light passing through it is used for or by the " dominant tenement. I come to that conclusion for this " reason, that you do not want a statute to give you a right " of access in your own premises to light through your " aperture. This statute is wanted to assure your right in " the space over the servient tenement. But there it is " said that the cases have to a large extent proceeded " upon the form and size of the aperture or window, and " that is perfectly true, because, of course, the opening " in the dominant tenement is the limit which defines the " boundaries of the space over the servient tenement. It " is for that reason that in all the cases the Court has had " regard to the aperture in the dominant tenement, by " means of which the space over the servient tenement " has been useful to the dominant tenement. It is said " that that conclusion is inconsistent with the definition " given by Lord WESTBURY in *Tapling* v. *Jones*. But " in my opinion that is not so; and Lord WESTBURY, in " referring to a window as equivalent to an access, only " means that the window, in effect, defines the access, and " that that was the view taken by the House of Lords " seems to me confirmed by a passage in the judgment of " Lord CHELMSFORD, in which he says:—' By the Prescription " ' Act, then, after 20 years' user of the lights, the owner

" ' of these acquires an absolute and indefeasible right,
" ' which so far restricts the adjoining owner in the use of
" ' his own property that he can do nothing upon his
" ' premises which may have the effect of obstructing them.
" ' The right thus acquired must, necessarily, be confined to
" ' the exact dimensions of the opening through which the
" ' access of light and air has been permitted.' In other
" words, he seems to me to say that the aperture through
" which the access of light has been admitted is the
" measure of the access which is to be enjoyed over the
" servient tenement. This case seems to me to illustrate
" the propriety of not introducing into the construction of
" the statute any questions with regard to aperture, opening,
" or window, except so far as the statute itself introduces
" them. For instance, in the present case no less than
" three openings have been suggested as being the decisive
" or dominant openings to which regard must be had. In the
" first place, there is a suggestion which, I believe, I threw
" out, that the interstice between the sides of the wall and
" the overhanging top and bottom where the dormer was
" situated might itself be the opening, because I conceive
" there can be no doubt that by a grant of the house that
" space would pass, and you have, therefore, a confined
" opening from the adjoining premises into what, in law, is
" the plaintiffs' house. The second, which is that on which
" the plaintiffs mainly relied, was, that the dormer window,
" consisting of glass arranged in three distinct planes, was
" itself the aperture to which regard must be had. The
" Master of the Rolls, in his judgment on the interlocutory
" application, seems to have been inclined to a third view,
" that the aperture to which you must have regard was the
" opening in the ceiling in the plaintiffs' room through
" which the light found its way from the dormer into the

" plaintiffs' room. But it seems to me not necessary to " determine any of these questions. If that dormer window " had for twenty years received light passing through a " space over the defendant's premises, any aperture which " the plaintiffs may be minded to use, and which lets in any " portion of the light passing through the same space, is " protected by the Act—it is the same access to the same " dwelling-house. When you have those circumstances it " seems to me you have all that the Act requires."

The case of alteration by setting back the plane of the windows having been discussed in the last case, the effect of an alteration by advancing the plane was discussed in a case of *Scott* v. *Pape*, the buildings in that case being situate at Newcastle-on-Tyne. The plaintiff had advanced his eastward wall towards the defendant's buildings, distances varying from little more than a foot to more than two feet, and the new windows occupied rather more than half of each of the corresponding windows in the old building, the planes of the new and old windows being parallel. It was argued, as in the case to which I last alluded, that the alteration of the plane and size of the old windows was an abandonment of the easement of light; but, dealing with the alteration in size, Mr. Justice NORTH held that, although blocking up part of a window might be abandonment of the part blocked up, it was no evidence of abandonment of the part left open, and still less so when that part was incorporated, so to speak, in a larger and more important window placed in the new buildings; and he held, upon the authority of the case of the *National Provincial Plate Glass Company* v. *Prudential Assurance Company* that a right to light once acquired is not necessarily lost by an alteration in the position or plane of the window through which such light has passed; and he found that, the ancient lights not having

been abandoned, the removal of the old wall circumscribing the apertures of the old windows was immaterial, because the access of light to the plaintiff's buildings was still enjoyed through space through which it had been enjoyed before the buildings were altered, and he restrained the defendant from building so as to interfere with the access of light to the new building. The case went to the Court of Appeal, and Lord Justice COTTON described it as a question of considerable importance, and, to a considerable extent, one of nicety; and he said:—

"What alteration, then, will deprive the plaintiff of his "right, this right which can be claimed only in respect of "a dwelling-house, workshop, or other building? Will the "alteration of the purpose or object for which the building "is to be used, as the conversion of a workshop into a house "or of a house into a workshop, have this effect? It will "not: that is definitely settled by the case of *Ecclesiastical* "*Commissioners* v. *Kino*. The old building there was a "church, and that which was to be built on the site of the "church was a warehouse, an entire alteration of the pur-"poses and of the character of the building. Then, will "moving back the plane of the wall deprive the plaintiff of "his right? In my opinion, no. It is difficult to see how "the mere fact of moving back can do so, and in fact there "is authority against such a proposition. Then, if moving it "back will not, will simply moving it forward have this "effect? In my opinion, both the moving back and the "moving forward may destroy the right, because the new "building, when constructed, may, either by being sub-"stantially advanced or substantially set back, be so placed "that the light which formerly went into the old windows "will not go into the new. If a building is set back, say "100 feet, it will not enjoy the same cone of light that was

" enjoyed before, but will have an entirely different cone,
" and it may be moved so far forward that it will not enjoy
" the same light as that enjoyed by the old building. In my
" opinion the question to be considered is this, whether the
" alteration is of such a nature as to preclude the plaintiff from
" alleging that he is using through the new apertures in
" the new wall the same cone of light, or a substantial part
" of that cone of light, which went to the old building. If
" that is established, although the right must be claimed
" in respect of a building, it may be claimed in respect of
" any building which is substantially enjoying a part or the
" whole of the light which went through the old aperture.

" It may be that in some cases, even although there is
" not such an alteration as would deprive the plaintiff of his
" right, he may by other means have precluded himself from
" insisting on it, because he may have so altered his build-
" ing, or be so wanting in evidence as to what the position
" of the old window was, that though he may be actually
" enjoying a portion of the old light, he cannot show it, and
" so by a mere defect of evidence he will be unable to
" enforce such right as he has. But here, in my opinion,
" considering the small actual advance (although no doubt
" relatively considerable), having regard to the distance
" between the two buildings, we ought not to hold that
" a substantial portion of the old light does not pass through
" the new openings."

The Lord Justice Fry delivered a judgment which, I venture to think, is very valuable as dealing with the question, How is the right to light affected by alteration in the apertures through which the light is used by any dwelling-house, shop, or other building? After reading the words of the 3rd section, to which reference has been so often made, his Lordship proceeded as follows :—

"I pause to observe that in my judgment the word "'access,' as used in that section, does not refer to the "access through the orifice—through the aperture or "window—but to the freedom of passage over the servi- "ent tenement; and I think some confusion has arisen "from supposing that the access referred to there is the "access through the window of the dominant tenement. "Undoubtedly the two are closely connected together, "because the right acquired under this section of the "statute by the dominant tenement is governed and mea- "sured by the access to the dominant tenement, and "therefore the aperture which lets the light into the "dominant tenement defines, in a manner familiar to us, "all the area which must be kept free over the servient "tenement. The two things are closely connected together; "the one is the measure of the other, but they are not "the same thing.

"The next inquiry, which is important, is this:—What "is the meaning of the word 'thereto' in the passage, 'The "'right thereto shall be deemed absolute and indefeasible'? "It appears to me plain that it must mean the right to the "same access and use of light to and for any dwelling-house, "workshop, or other building. It has not been contended, "and I think it could not be reasonably contended, that the "right was one in gross; that the right was one which could "be enjoyed except in connection with a dwelling-house, "workshop, or other building. But it has been contended "that the building to enjoy it after a lapse of twenty years "must be the same building as that which acquired it during "the twenty years or at the end of twenty years. The "statute says nothing of the sort. It does not say 'to the "'same dwelling-house, workshop, or building.' I can see "no reason or ground upon principle or authority why we

" should import such a limitation into the Act. I think, " therefore, that the Act is silent as to identity of aperture, " and is silent as to identity of building. All the Act does " is to give the same sort of access and user of light, and it " must certainly not be more than it was before. Through what " aperture that light comes in, or for what building this light is " used after the expiration of the 20 years, is, as far as the " statute is concerned, a matter of entire indifference. That " is my view of the true meaning of the section. Of course it " does not follow that every building erected by the owner " of the dominant tenement is entitled to this light. If that " building is so placed that it cannot make use of light " passing over the same space as the original building " enjoyed, then it does not use the same light ' to or for any " dwelling-house, workshop, or building,' and therefore the " alteration in the building, by altering the light which is " used, has deprived the new building of the right to enjoy " light which it does not use. It does not bring itself, " therefore, within the section. Again, it may well be that " the new building may be constructed in such a manner as " to show evidence of intention to abandon for ever the use " of the light to which the old building was entitled. In " that way the alteration of a building may be of the last " importance.

" It has been argued in the present case that we have " such an alteration, and that the difference between the " position of the windows in the new building and those " which existed in the old is evidence of intention to " abandon for ever any claim to the right to light which " existed in the old building. But I am bound to say that " I can come to no such conclusion. When you open a " window it is very difficult to suppose that you intend to " abandon the right to the access of light to the building.

"When you have closed a window it may be that the Court "or jury might see an intention to abandon the right, but "when you maintain either in its entirety or to a consider- "able part of it the old window, it is difficult to suppose "that you mean to give up a right to the light which that "window or a portion of it enjoyed. The question of aban- "donment is one of intention, to be gathered from all the "circumstances of the case, and looking at all the circum- "stances of this case, I have come to the conclusion that "there was an intention to use all the light which the old "windows were entitled to use, and no intention to abandon "any part of it. Again, it may well be that the alteration "of a building may put an end to the plaintiff's right in "this way, that it has become impossible for him to prove "that the access of light he is claiming is the same as that "which existed to the old window. Whenever such a "difficulty of proof arises in the plaintiff's case by reason "of his change in the building, then, undoubtedly, his right "may be lost by the change which he has himself caused. "But where the new building does use the same light, and "avails itself of the same access of light as the old, where there "has been no intention of abandonment, and where there "has been no loss of evidence and no incapacity to prove "the identity of the old light and that which has been "interfered with (all of which circumstances, in my judgment, "occur in the present case); then I see nothing in the statute "to deprive the owner of the new building of the right to "the access of light which existed in the old building."

With this case I bring to a conclusion the latest points on the Law of Ancient Lights as it at present stands. The contests at the present day nearly always arise when new buildings take the place of old, and the surrounding ones are in turn pulled down and replaced by more lofty erections.

The owners of those first built are naturally anxious to secure as ample a supply of light as possible, and their neighbours are equally anxious to carry out their own plans without let or hindrance, and perchance without a too nice regard to the convenience of their neighbours. From the cases to which I have in this Paper called your attention, two general rules may, I think, safely be deduced as to the relation which the windows or apertures in a new building must bear to those in the old, in order that the access of light which the old windows enjoyed may be claimed for the new. First, it is desirable that as large an area as possible of the old windows should be included in the area of the new. It is probably sufficient if a considerable portion of any one of the old windows is so included, though what that portion should be is not very clearly indicated in the judgments I have quoted; for, I think, you will observe that Lord Justice Cotton has somewhat receded from his dictum in *Harris* v. *De Pinna* that the whole of one old window must be retained in the new. Secondly, the plan of the new window may be varied in any manner as long as a considerable portion of the same cone of light which entered and lighted a room through the old aperture still enters and lights a room through the new aperture. By setting a building further back, or advancing its front, only a portion of the light which passed through an old window will pass through the new window, and that portion varies with the distance between the planes of the windows. Some of the light which passed through the old aperture must pass through the new; but the decisions seem to show that the distance must not be so great as to allow only a very small portion of the light which entered the old aperture to enter the new, as if that is the case that small portion of light will not be protected. You will, no doubt, have gathered

that it is highly important in constructing new buildings in which there is no intention of abandoning ancient lights that the exact positions of the windows or apertures should be carefully noticed, and satisfactory evidence as to such positions preserved; for it is necessary for anyone seeking to prevent his neighbour from building so as to obstruct the access of light to a new building to prove that the light which it is alleged is obstructed had access to the old building by means of areas which are still to a considerable extent open to the access of the same pencils of light, and this is often difficult of strict proof unless the positions of the old apertures are carefully noted before the building is pulled down.

What further points in the law relating to the easement of light the ingenuity of suitors or their advisers may develop it would be rash to predicate, but I trust that by a consideration of the points to which I have this evening directed your attention you may be able, with a careful and accurate knowledge of the facts, to form a satisfactory judgment upon the questions affecting the easement of light which may come before you.

Mr. H. H. Collins (Fellow) said he had much pleasure in moving a vote of thanks to Mr. Gardiner for his excellent Paper. He cordially endorsed the observation with which the Paper concluded, viz. :—"I trust that by a consideration "of the points to which I have this evening directed your "attention you may be able, with a careful and accurate "knowledge of the facts, to form a satisfactory judgment "upon the questions affecting the easement of light which "may come before you." That was a consummation heartily to be desired, but he felt that, in spite of the fresh light thrown upon the subject by the Paper, the goal was as

distant as ever. By a curious coincidence he had been concerned in the two cases to which Mr. Gardiner had referred (viz., *Harris* v. *De Pinna* and the *Ecclesiastical Commissioners* v. *Kino*). He was successful in one of them, but in the other he was successful in one court only. The disagreements of judges precluded, it seemed to him, in almost every case, the possibility of a layman, however much he might have studied the question, from forming a clear notion of the law on the subject so as to properly advise his client. The case of the *Ecclesiastical Commissioners* v. *Kino* had been to him a cause of great anxiety. He had consulted the late Mr. Whichcord, the late Mr. I'Anson, and Mr. Clifton, and had asked their advice as to whether the view he had taken was a correct one, and when those three gentlemen, who he ventured to say had as large an experience as any Members of the profession, were in accord with him, he was, naturally, surprised at an adverse result.

There had been a case (*Hackett* v. *Baise*) in which the late Master of the Rolls, Sir George Jessel, laid down the rule of 45 degrees; because, he said, if a building had an access of light to it at an angle of 45 degrees, he should consider, *per se*, if there were no disturbing circumstance, that the building enjoyed a sufficiency of light for ordinary purposes. It was on that principle that the case of the *Ecclesiastical Commissioners* v. *Kino* was laid before the Court. That was the case of the site of the old Church of St. Dyonis Backchurch, but the Judges were mistaken in thinking that a pile of warehouses was to be erected on it. The actual result was that a large office had been erected from his designs on the plot in question. The ground was vacant at the time of the action, and accurate drawings existed of the old church. The old aisle-windows, which would have been affected, were some 6 or 7 feet from the level of Fenchurch Street, and drawing a line from the sills of those

windows to the top of the buildings in Fenchurch Street, which were some 70 feet high, he had thought (and his opinion was confirmed by Mr. Whichcord and Mr. I'Anson, though Mr. Clifton, he admitted, had some slight doubt about it) that if he built within that angle there would be an amplitude of light in respect of building requirements in the City. He thought, too, that the quality of light in regard to the purpose for which it was required should enter into the consideration of the Judges, and on his side it was contended that the Commissioners were only entitled to the "dim religious light" requisite for a church; but it was held that the Ecclesiastical Commissioners were entitled to all lights and easements of light which they formerly enjoyed.

In the other case he had been more successful. It was quite a novel case; but the Judge gave his judgment almost in the same words that he (Mr. Collins) had himself employed in advising his client. It was a case which almost came under the Building Act. He maintained that the erection, which was a large timber-stage, was not a building under the 3rd section of the Act; it was not a "dwelling-house, workshop, or other building," and therefore Section 3 could not apply. This was the decision given in the Court of first instance, though the question was eventually decided on quite a different principle. Legal gentlemen, like the author of the Paper, said that the principle was perfectly clear, easily applicable, and sufficient for a layman to come to a definite conclusion. The great difficulty in these cases was that the Judges differed in their rulings.

He (the speaker) had worked in many cases with Mr. Robert Hesketh (than whom nobody, perhaps, had greater experience in questions of light and air), but even he would not give a definite opinion on cases of light and air, saying that it depended on the Judge before whom the matter came

and on the great differences of opinion which existed between the Judges in the Court of Appeal.

He had hoped, and still did so, that the author of the Paper would suggest some means of getting over the anomalies connected with the law of light and air, so that cases could be decided more on the lines of common sense than by legal quibbles. He thought at the present moment that the law was absolutely immoral on the question. It enabled a certain number of unprincipled solicitors in London to take advantage of the Act as it now stood, modified by the various decisions that had been given. It also enabled unscrupulous members of the surveyor's profession to take advantage of its uncertainty. It harassed and worried every professional man who had to erect buildings in the Metropolis, to the great detriment, expense, and vexation of clients. It was only necessary to look at Long's Hotel, in Bond Street, to see its mutilated condition and to realise the mischief that could be worked under the present state of this question. The architect would, no doubt, in the future be pointed at as wanting in that skill and ability which he really possessed, but which he had been unable to use on account of the extraordinary varying decisions of the Courts.

The Members would also recollect the large block of office buildings erected on the Thames Embankment for which an enormous ground-rent was charged by the City of London. He had had occasion to consult Mr. I'Anson in a case where the decision of Vice-Chancellor Bacon had been, unfortunately, adverse to his client. In that case, after having granted a mandatory injunction directing them to pull down a building, he (the Vice-Chancellor) had been asked to give some intimation as to what angle of light he thought the plaintiffs should be satisfied with, and had said that they were entitled to as much light as they ever had, but refused to decide how much that

should be. Mr. I'Anson (who was then President of the Institution) had come to the decision that an angle of 60 degrees must be adopted, and consequently on his view of the matter, and to satisfy the Court, that low angle had been taken, to the great detriment of the building. He ventured to think many Members of the Institution would have been pleased if the Author of the Paper had suggested some way out of these difficulties. Nevertheless he could not do impossibilities, and, as the Judges said, all these cases must be dealt with according to the circumstances surrounding them.

In the case of *Lawes* v. *Carter* (which was a case in the Court of Appeal, quoted in the *City Press* of the 25th of February, 1882) the observations made by Sir George Jessel (then Master of the Rolls) contained, he thought, the key to the solution of the difficulties surrounding questions of "Light and Air."

The Master of the Rolls said that "as the law now "stood a man might diminish his neighbour's light to a "certain extent, and the remedy depended upon the degree "of obscuration. Even where what might be termed some "substantial damage had been shown, the Court, since the "Judicature Acts, had a discretion as to granting an in-"junction or merely damages. For instance, the Court "would not order a building which had cost £10,000 to be "pulled down at the instance of a plaintiff who had suffered "damages to the extent of £50."

He refused the injunction asked for (which Mr. Justice Fry had previously refused), and with this Lords Justices Baggallay and Holker concurred.

Now, it seemed to him (Mr. Collins) that if the Judges would, under the present or an extended power of the Judicature Acts, exercise this right of refusing to grant

injunctions, but upon hearing the merits of the case allow the building to proceed, and remit the question to the consideration of a qualified umpire to decide what damages (if any) had accrued, and the value of the same, that justice would be done; and instead of truncated structures being erected the Metropolis would be graced with tastefully-designed buildings in lieu of the too often dwarfed erections which architects were compelled, under the existing law, to erect.

It could not be said that this was "compulsory taking" of property, because everything must have its value; and if the damage was so severe as to permanently and truly injure the dominant structure the arbitrator would fix very heavy compensation; leaving the property at the same time to the plaintiff in the case.

Mr. Howard Martin (Fellow) begged to second the vote of thanks to Mr. Gardiner for his very able Paper. It was very desirable that lawyers should come to the Institution and assist the Members in their discussions by laying down the legal principles on which they had to work. He thought also that surveyors might assist lawyers by pointing out the difficulties that existed, in practice, in the application of those principles.

He did not propose to do anything so presumptuous as to discuss a question of law with a lawyer, but he should like, presently, a little further explanation as to Mr. Gardiner's remarks bearing on the case of *Harris* v. *De Pinna*. "This "case," Mr. Gardiner had said, "appeared to him to apply "to the case of a large opening in the side of a building "closed by sliding shutters." But there was a great distinction between moving an opening in the structure

itself, where the position of the structure was actually altered, and a case where the actual opening was not moved at all. He would have thought, looking at it from a layman's point of view, that sliding shutters came rather within the exception mentioned by the Judge, who had said that if a man pulled down his blinds to shut out the light of day, he would run no risk of losing his right to light, because it was not necessary that he should always enjoy the full flood of light which would pass, uninterruptedly, through the window.

There was one point upon which legislation might do great service. The time was coming when a very large portion of the West End would be rebuilt, on the falling-in of the ninety-nine years' leases on which the property was held; and, if he rightly understood the law, it was within the power of persons who had premises of very little value to entirely stop the rebuilding of very valuable premises on account of interference with light and air, which, though provable, inflicted no substantial injury whatever. It seemed that the adjacent owner, if he could show that the access of light and air to his premises was interfered with, though the interference did not cause him any real pecuniary damage, or, if any, very little, could set the law in motion, and stop the rebuilding of property to the value, perhaps, of tens of thousands of pounds. Now, it seemed to him (assuming that this view was right) that it would be a very desirable thing if some tribunal could be appointed which should decide whether there was any interference with light and air that would be of sufficient moment to stop important improvements, whether public or private; also to decide whether it was a question of money compensation, and, if so, fix the amount, so that the adjoining

owner who felt aggrieved should have his compensation assessed, and take his money, when no substantial injury was caused to his own property, rather than that he should be allowed to interfere with the development and growth of, perhaps, a whole street or neighbourhood. He made that suggestion in the hope that some one of their own or of Mr. Gardiner's profession might suggest some simple method of meeting those difficulties.

Mr. A. Vernon (Fellow) considered it an advantage to surveyors to have the opinions of their legal friends.

The Paper that had been read dealt with the different decisions which had been given, and the last paragraph referred to the difficulties that might be expected in the future.

Upon the first point he begged to suggest, as had already been done, that there should be a better way of settling these questions than the most tedious and harassing mode which was now in use, and which was often vexatious in a threefold form. First, the negotiations went on in private; then they were generally abortive; then the matter frequently came into court, and was afterwards referred to another tribunal for settlement. These three stages were costly and harassing, and delayed the growth of a large city. If light and air were marketable commodities, there should be a means of buying them, and of easily putting a tribunal in motion so that the servient owner would be in a position to deal more effectively with the dominant owner. It appeared to him that if Mr. Gardiner could suggest some simpler form of optional negotiation—not like the Land Clauses Act exactly, but some simple form by which the servient owner

would have a right to go to a special referee, and put the Judicature (or some other) Act into force,—he would render a great service, as these matters might then be promptly and easily dealt with. If it were a question of compensation, there should be a means of assessing the amount, so that before the building was erected they should know what was to be paid to the owner of light and air.

Mr. Gardiner, after acknowledging the vote of thanks, said that a remark had been made, as to an injunction, which was scarcely accurate. He had pointed out in his former Paper the limit to which the Court went in the case of an injunction—that was to say, if the plaintiff could satisfy the the Court or jury that the amount of damage should be assessed at a sum of (he believed) £200, the Court would grant an injunction, but in cases in which no Court or jury would give any such sum as that, the Court had the power, instead of granting an injunction, of getting the damage assessed. Therefore Mr. Howard Martin was not quite correct in saying that a very small holder could prevent a very large improvement; and he thought it necessary to ask (and in the present day perhaps it was more than ever necessary) whether a person should be obliged to sell his house if another, for his private benefit, wished to erect a building which shall entirely destroy the comfort and convenience of that house?

Where public works were to be carried out, Parliament gave power to those who were to carry out those works to compensate the owner, and to take compulsorily what was wanted, the compensated owner being obliged to submit; but was that to be the case with a private individual?

Why should a man squeeze out a smaller man merely for his own benefit and not for the public good, even if he paid for it?

Mr. C. Oakley (Fellow), on behalf of Mr. T. Chatfeild Clarke, moved the adjournment of the discussion to the next Meeting. The motion for adjournment and the vote of thanks to Mr. Gardiner were then put and carried unanimously.

No. 258.

AT

THE ORDINARY GENERAL MEETING,

Held on Monday, March 19th, 1888.

THE PRESIDENT (W. J. BEADEL, M.P.) IN THE CHAIR.

The adjourned discussion on the Paper entitled "Points in the Law relating to Ancient Lights," by Mr. DUNDAS GARDINER (Barrister-at-Law), read at the Ordinary General Meeting of Monday, March 5th, 1888, was resumed.

THE PRESIDENT said that, before calling on Mr. CHATFEILD CLARKE to resume the discussion, it would, perhaps, be as well if some further reference were made from the chair to a matter which had engaged the attention of the Council very deeply—especially that evening. He alluded to the Architects' Registration Bill, now before the House of Commons, a Bill which would, they believed, have a material influence on the interests of the Institution. The attention of the Members had, no doubt, been drawn to it, and it was most desirable that each one, in his individual capacity, should satisfy himself as to the purport of the Bill, and as to the serious and injurious effect it would have on the Surveyors' and other kindred Institutions, like the Institute of Civil Engineers and the Royal Institute of British Architects. The Council, therefore, through him as President, desired to draw the special attention of Members to the matter and to urge them to use their influence with their friends, either in or out of Parliament, against the Bill, after satisfying themselves, as the

Council had done, that its tendency would be to induce and enable persons to qualify themselves for the profession without going through the severe ordeal which all the young Members of the Institution had to undergo before they could arrive at the honourable position of Fellows or Professional Associates.

He regretted the absence on this occasion of Mr. Gardiner, who had, however, promised, after that evening's discussion, to reply to any comments his Paper might elicit.

Mr. T. Chatfeild Clarke (Fellow) said he was sure that every Member would feel much indebted to Mr. Gardiner for his second Paper on this very difficult and interesting subject. As far as he was able to judge, not being a lawyer, the inferences drawn from the several judgments were perfectly correct.

But, before referring to the cases mentioned by Mr. Gardiner (in many of which he, the speaker, was himself concerned, drawings of which he had been able to place upon the screens, and which, he thought, would be interesting to those present), he wished to reiterate the opinion which he had long entertained, and which he expressed in that room in 1875, that the way in which these subjects were dealt with by the Courts was unsatisfactory in the extreme; and as long as there was no professional referee, or some person with peculiar knowledge of plans, authorised to go to the spot, and, having considered the plans, to form his judgment on the whole matter, so long would the Courts be liable to give judgments which, without the slightest intention of doing so, defeated, as he believed, the ends of justice and of equity. He said that with a perfect conviction and after long experience.

On one point he found himself at variance with Mr.

Gardiner, who, at the end of the last discussion, gave it as his opinion that one had no right to compel a private owner to sell or to part with his interest against his will. Now, he thought the Meeting would concur with him in the opinion that, where by non-compulsion as to some very small point (say, a small window of probably little or no intrinsic value in itself) the result was to deface or spoil a work of art, such as a large architectural work going on in a great city, the answer was a good and just one, that the advantage of the body politic ought to outweigh altogether the small interest of the single individual. He was not for a moment arguing against fair and proper compensation, but he believed that the doctrine of non-interference might be carried too far, as in cases where, as everyone connected with light cases knew by experience, action was taken merely to extort a sum of money, and where the dominant tenant did not value his light beyond the sum of money that it would put into his pocket. Under those circumstances the opinion of a referee—a perfectly impartial man, who had given full consideration to the whole case—should be acted upon, and one would, he thought, at least be justified in taking such a course by compensation as would be for the benefit of the public interest at large. But he, having in former years attended many men very eminent in the law (Lord Romilly, Lord Coleridge, and others) on the inspection of properties, must express his opinion that a judge sitting on the bench and merely inspecting drawings could seldom arrive at the best decision on questions of this kind.

He observed some legal friends present, and he hoped to hear them on the question. He believed that Judges now, as a rule, objected to go and view a property; but for a practical man the viewing of the property was one of the most important points in the whole matter. He was, recently,

in a case before the Courts, and had brought down two photographs with him in order that those present might judge for themselves. Referring to the first photograph, an allegation was made that a first-floor light was overshadowed and injured by a building lately erected by himself, and that a ground-floor fan-light, underneath the glass covering, put up by the parties themselves some years ago, was also a subject of loss. He asked the Members present to carefully consider the whole character and arrangement of these buildings and to judge practically whether or not there could have been any material diminution of the view of that house by the erection of the house next door. The second photograph was taken ten inches within the first-floor window, looking out on what was shown. Here was the whole of this unobstructed light. No obstruction could even be seen, yet Mr. Justice KAY gave damages to the extent of £50, which covered costs in the case. There was, as a Member had suggested, a slight difference of plane of the fronts of the respective buildings.

Now, this was a case which had been recently decided. A responsible surveyor had given evidence that this house was damaged to the extent of £200 by the erection of the building next door, and by the loss of light sustained. He must leave it to any man of experience in these matters to say whether or not he believed that, practically, any appreciable damage could possibly have been done to that house.

He was afraid, also, that in these cases they were very often more or less subjected to a caprice of judgment on the part of judges, and he was also bound to confess that he did not think, in some particulars, there was that calm judicial respect paid to the evidence of professional experts to which, in his humble opinion, it was entitled; and he regretted to say (and he said it in perfect soberness of judgment) that in our courts there did not appear, of late years, to have

been always that high judicial calmness sustained, in dealing with these matters, which the public had a right to and was accustomed to expect.

Now, with regard to the more general class of questions. Mr. GARDINER had not dealt with the whole of the questions arising in these light-and-air cases, especially, with one of very great importance—viz., the obstruction (or the alleged obstruction) of lateral light.

He (Mr. CHATFEILD CLARKE) was years ago concerned in a case with which Mr. GARDINER was very familiar, and had brought with him a plan showing the elements of the case.

In the case of *Leech* v. *Schweder*, heard before the late Sir GEORGE JESSEL, M.R., and afterwards before the Lords Justices, LEECH's premises abutted on SCHWEDER's premises, being the north-eastern block which he (Mr. CHATFEILD CLARKE) built. They erected a building (see Plate I., figs. 1 and 2), 65 ft. deep, with a height over the skylights at the rear of LEECH's premises of 30 ft. at one part and 20 ft. at another above the height of the old wall. Sir GEORGE JESSEL immediately granted an injunction to restrain his clients from going on, on the clear ground (touched upon by Mr. GARDINER on the last occasion) that as both freeholds were the property of the Skinners' Company, and they had made a grant of light under this lease to LEECH, the Skinners' Company could not derogate from their own grant, saying that they had no right to add a course of bricks to the height of that wall, and that they had no right to inflict the loss of a shilling on a man whose lights had been granted to him by the lease of the Skinners' Company. But his clients appealed to the Lords Justices' Court—and it was important, he thought, to bring this case before the Meeting, because Mr. GARDINER, in referring to the subject at page 221, had not mentioned the restrictions which were put forward on

appeal. On appeal Lord Justice MELLISH and Lord Justice JAMES differed from Sir GEORGE JESSEL, and ordered an experiment to be made by screens as to the amount, if any, of obscuration. They were put up laterally to the length of 65 ft. to the height of the proposed buildings. Lord Justice MELLISH said "the user or disposition, *i.e.*, the extent "of the right is the same as if by prescription," and considered it would be "most mischievous to give, by express covenant, "a greater right than obtained by 20 years' user." Lord Justice JAMES concurred, and said "the question must be "tried on exactly the same principles as if it were a suit "against a neighbour on the assumption that the lights were "of sufficient antiquity." The result of that judgment was that his clients maintained their building, and the other side lost their case. Mr. HENRY CURREY had inquired into the question as to whether their erection was an obstruction to light, and held it was not so. Sir GEORGE JESSEL, in referring to the case, said, "I do not understand how the "Lords Justices arrived at that decision"! However, their decision was given, and by it all parties were bound, and he thought it was of considerable importance that Members should have it clearly laid before them on the present occasion.

The skylights at the back were indicated on the plan (Plate I., fig. 2) as "LEECH's skylights."

There was another case of lateral obstruction in which he was concerned, not very long ago, at Kensington, which he should like any of those who were interested in this matter to consider carefully. It was a house at one time held by THACKERAY, and, later, by an artist, who threw out a projection as shown on the plan and section (Plate II.), but there was no doubt that the right of the "ancient lights," marked on the plan, was retained. It was at first proposed to throw out a building laterally, to the extent

shown on the plan, from A to E, and to take it up vertically to a great height. He was retained, and the parties began to cut away their building down to the lines shown on the plans and sections (Plate II.), and having got to that line they then tried the action. Mr. Justice KAY, in that case, held that as the parties had themselves obstructed to a large extent their ancient right of lights, to that extent, therefore, it was not a subject for recovery; that a certain portion of light—the southern portion—was to some extent damaged, but not materially, and he did not give judgment in favour of the plaintiff. On the other hand, he admitted that there was some slight interference with their light. Now, that was a case where there was lateral obstruction very close to the boundary wall, but there had been, obviously, a difficulty, as would be seen, in recovery; and yet if one went to the premises now, as he had since done, he would see there was an overshadowing gloom thrown over the rear portion of the plaintiff's house, which was to some extent an undoubted injury to the property as it existed.

There was a building which he had himself erected which illustrated the point raised by Mr. COLLINS as to many cases in London where buildings had been materially interfered with from respecting the lights of the opposite neighbour. It was intended by the wish of his client, though advised that he had no legal right to do so, to go to the height of the adjoining buildings, with a result which was seen in the illustration (Plate I., fig. 3), and which showed how it had been cut about in every possible way. It had been done with the greatest consideration and in consultation with their late President, Mr. I'ANSON, and not before the conclusion had been arrived at that it was the only safe line ultimately on which to erect the building. He instanced that case as one of those where it was a great question both for society at large and for an Institution like theirs, whether

there should not be some power by which so tremendous an injury to the streets and the architectural features of London could be prevented. No doubt there were many present who knew the case of the building at the corner of Bishopsgate Street and Threadneedle Street, opposite the "Baltic." That building was intended to be (the architect had shown him the plans) of considerable architectural merit and character; but, unfortunately, the elevation interfered with the lights of the "Baltic," and he had to cut his building about to the extent seen in execution, and for the ultimate poor result the architect was not to be blamed, being amenable to this law of lights. It was his own impression, and he pressed it upon those present as surveyors, that there should be means of arriving at the comparative importance of the building and the importance of the alleged damage to light, in order to arrive at a decision which should be just to all.

Now, with regard to one or two of the cases which Mr. Gardiner had touched on. He was consulted in the case of *Harris* v. *De Pinna*, and concurred with Mr. Collins that it was difficult to believe that the timber-stage conferred a right to claim for 20 years' user of light, and he therefore rather concurred in the judgment that was first arrived at.

With regard to the case also touched upon by Mr. Gardiner, in which he (the speaker) was also concerned, viz., *The Ecclesiastical Commissioners* v. *Kino*, referred to at page 232 of the Paper, it might not be uninteresting to the Meeting to know that the plaintiffs in the case, the Ecclesiastical Commissioners, though the church had been demolished, restored *in situ*, by model, the whole of the destroyed windows of the church specially needful in order to protect their case, and, as they were aware, they ultimately succeeded, and rightly as he thought, in restraining the build-

ing of Messrs. KINO from being carried to any great height.

But there was another very important case, which Mr. GARDINER had also referred to, in which he (Mr. CHATFEILD CLARKE) was principal surveyor to the defendants—viz., the case of *The National Provincial Plate Glass Company* v. *The Prudential Assurance Company.* (See Plate III.)

Now, that case lasted, he believed, four days. First Sir GEORGE JESSEL refused an injunction, and the case was later fought before Lord Justice FRY. The facts were as follows. In rebuilding the premises of the National Provincial Plate Glass Company they formed a light-well at the point C, and windows looking into it. The Court held that all those windows, from the alteration of plane and other circumstances, lost their right; but it would be seen that a little skylight, or sort of dormer-light, existed in the well. The Prudential Company advanced their building somewhat, as the red lines showed, though he set back to meet them in order to avoid litigation as far as possible; but the National Provincial Plate Glass Company, in rebuilding their premises, altered the character and form of the dormer-light into a skylight, and enlarged its area as shown on the plan. They (the defendants) tried to plead honestly and fairly that that was a material alteration, but the decision of Lord Justice FRY was, practically, in favour of the defendants, though it carried some damages. The plaintiffs' had applied for a mandatory injunction to pull down all the back part of the defendants' building, which would have cost some thousands of pounds. Lord Justice FRY used these words:—"It appears to me that wherever, for the "statutory period, a given space over the servient tenement "has been used for the purpose of light passing through "that space, a right arises to have that space left free so long

"as the light passing through it is used for or by the "dominant tenement."

That case was considered almost as a new departure. Really, what Lord Justice FRY held was, that the access to light to it must, more or less, be held intact. The plaintiffs recovered £200 damages, but no costs, and there was no mandatory injunction; so that, in reality, his clients (the defendants) won that important case.

A case often referred to in the courts, and which was touched upon by Mr. COLLINS at page 248—viz., *Hackett* v. *Baise*,—seemed, for a time, to establish that an angle of 45° was the limiting angle at which one might build; but he would warn any young practitioner in the room that this could not in any sense be accepted as a basis for absolute judgment, and he would further quote the case of *Parker* v. *The First Avenue Hotel Company*, where Lord Justice COTTON, on appeal, distinctly repudiated 45° as constituting no interference with ancient lights.

He thought, therefore, that Mr. GARDINER's Paper, able and excellent as it was, did not touch the important question of how far one may deal with a building with regard to lateral light by an obstruction on the side of the building. He could not but feel that a very equitable mode of dealing with many of these cases would be—that there should be liberty given, with some slight alteration of plan, to give an equivalent of light without the slightest damage to the property.

It was his firm conviction that no solution of the question would ever be arrived at until, by Act of Parliament or otherwise, some decisive tribunal was constituted, practical in its character—not merely legal,—and able to deal with the facts of the case all round upon an actual survey, and looking at the relative importance (which, of course, was

one of the great points) of the lights sought to be protected, and the result to the building about to be put up.

Mr. C. K. Bedells (Fellow) said it was as well to avoid altogether referring to cases now pending, and he had, therefore, chosen, as an illustration of the remarks he was about to make, a case which occurred many years ago. It was reported in the *Architect* of March 5th, 1870, and it seemed to him desirable to mention it because it appeared to corroborate and go even further than the cases which had been referred to. The case was that of *Hazell* v. *Barker*, and was heard first by Vice-Chancellor Malins in 1870, and again before the Lords Justices in 1871.

It arose thus. There was formerly on the site an old two-storey building, the upper part being of timber construction, with a sloping mansard roof. In that roof there were several windows, shown on the drawing (Plate IV., fig. 1) by the darker tint. He was erecting a new building on the site of the old one, and a wall had been carried up in precisely the same line, but it was perpendicular instead of taking the line of the sloping weatherboarded side of the old building (Plate IV., fig. 2), and was also two storeys high. The adjoining building was also of two storeys; but it had an upper storey—a mere loft—not more than 4 feet high to the plate. The sills of the windows, as was shown on the drawing, came above the gutter of the lower adjoining building.

But the positions of plaintiff and defendant in this case became reversed, for as soon as his clients began to build their brick building or warehouse on the site of the old shed, Barker blocked up one of the windows, and gave them notice that unless they established their right in court he should proceed to block up the others all the way along, on

the ground that they were not identical in position or size with the old; and, moreover, that they had encroached (*i.e.*, by building upright instead of at a slope as before) a distance of some 9 inches on his rights. That being the case, an injunction was sought to restrain him from blocking up their new windows. Thus the positions of plaintiff and defendant in that case were, practically, reversed. He and his clients offered to refer the case to an eminent third surveyor, but, that being objected to, they applied for the injunction. The case was tried before Vice-Chancellor MALINS. They would observe that the old and new lights were by no means identical (they were less so than in the cases shown at the last meeting by Mr. GARDINER's drawing), but that the sills of the new lights were raised 13 inches higher than the sills of the former lights, this giving the defendant power to raise the upper storey of his lower building now only 4 feet, to at least 5 feet 3 inches to the plate if he wished to rebuild. Less light was taken, the proportions being that in the old building they had had a superficial area of glass of 122 feet, and in the new a superficial area of 111 feet, or 11 feet less than before. The ground on which the decision was given in favour of his clients was this—that although the windows were not identical, yet they imposed a less burden on the servient owner than those in the former erection. By building the new windows higher and putting a number of brick piers between them instead of continuous rows of wooden window-frames, they practically relieved him rather than imposed an additional burden on him.

But the case was complicated by a number of side issues. For instance, as he had said, their building had a sloping side, and had a 9-inch old wall, which the plaintiff had thickened to 14 inches. The defendant had at some time thickened it by a 4½-inch wall on his side, and had then built a 9-inch wall, overhanging the 4½-inch wall,

so that at the top storey there were two walls with a space between them—one 9-inch wall built by defendant, and a 14-inch wall by plaintiff, the total width below being only 18 inches, including the thickenings on each side. (See Plate IV., fig. 3.) It was alleged that they had encroached on the wall. At least two days were spent in court by the barristers on the discussion of the question whether there were two walls or not. Another question arose on the difference of the space between the chimney and the side building when put upright instead of sloping. It was clear that there would be a less space than before, and there was a very long discussion on that question also. The plaintiff denied that there had been any encroachment or that an additional burden had been imposed. There was no alternative but to apply for an injunction, as defendant had blocked up their window and threatened to block up the others. The Vice-Chancellor gave a decision in their favour with costs. The defendant subsequently appealed, and the case came before Lords Justices James and Mellish, and again it occupied three days. At the end of the second day's hearing Mr. Cotton came to him and asked him to look carefully through all the evidence that had been given, before the sitting of the Court next day.

After doing so he (Mr. Bedells) recommended that a third surveyor should be appointed by the Court to inspect this wall and have it cut through, for he felt certain, as he had seen the building taken down, that when the wall was cut through it would be found that there were two walls, and a 2-inch space between them. This would entail an expense not exceeding £5, and could be done in half an hour.

The plan was at first suggested without success, but ultimately Lord Justice James said he thought it a very reasonable and economical suggestion. In the result, Mr. Bond, of the firm of Arding & Bond, was appointed to

have the wall cut through next morning, and to report to the Court. There was found, as he (Mr. Bedells) had anticipated, a 2-inch space between the walls; that they had not built on a wall that was not their own, nor was there any encroachment, and that decided this part of the case. The costs on both sides in that case were very heavy, nearly £2,000; and although the case was decided entirely in their favour, and the buildings were maintained, yet the difference between "taxed" and actual costs which fell on his client was very considerable.

Mr. Barker was a clergyman, and his was trust-property. After the matter was settled, Mr. Barker, in order to pay the enormous costs incurred, actually came to his (Mr. Bedells') client and offered him the defendant's premises at a very low price, in order that he might pay the expenses of the litigation.

He maintained that if the questions had come for decision before practical men—a practical court of two surveyors and one barrister, or even one competent surveyor—the case might have been settled at one-fiftieth part of the cost. He agreed with Mr. Collins in considering the present mode of settling these light-and-air cases unsatisfactory, uncertain, dilatory, and expensive. His own practice had been that whenever one of these light-and-air cases came within the scope of his advice, he invariably proposed first of all to refer it to an eminent surveyor. Failing that, that some third surveyor should be appointed to examine and report to the Court as a special referee. He advised such of their Members as had leisure and experience to qualify themselves specially to act in these matters as Special Referees, so that their fellow-Members would be glad to propose them for the approval of the Court. It might be even desirable to give up contentious practice, that their fellow-Members might

have the greater confidence in their impartiality as Special Referees.

Judging from Mr. GARDINER's Paper and from some considerable contact with solicitors and barristers, he gathered there was an impression that more recent decisions in their tendency imposed rather an additional burden on the servient owner. The case to which Mr. CHATFEILD CLARKE had referred, in which it was laid down that the dominant owner was entitled to take all the light that could possibly come over the servient owner's land, was, he thought, the extension of what had hitherto been regarded as the limit of the dominant owner's privilege—*i.e.*, due regard to the former user. He thought this mischievous, in this respect, that the servient owner had no gauge and no notice of the character of the easement claimed.

Again, Mr. CHATFEILD CLARKE had said that the angle of 45° was now, in many cases, extended. He (Mr. BEDELLS) had always thought that an angle of 45° was a fair average working line; but that this in some cases was varied either way—as, for instance, in the case to which Mr. CHATFEILD CLARKE had referred, in which PARKER, a photographer, required a delicate and an excessive light.

He noticed, as Mr. CHATFEILD CLARKE had done, that Mr. GARDINER in his Paper did not seem to give the least instruction on the question of lateral light. Counsel and solicitors were often struck with the fact that there were very few really decided guiding cases of questions of lateral light. There were so few, he believed, because it was so rarely that cases of lateral obstruction could be proved to be really material; but if some professional Member of the Institution, in connection with some legal Associate, would write a Paper referring to every case of interference with lateral light, it would be of much service to the profession. He thought that a claim to unlimited lateral light was mis-

chievous in that it was different from a case where light was taken directly from land opposite, for then one could block up the openings; but how could any surveyor present deal with or prevent a case of the acquirement of an easement by access of lateral light?

The dominant owner of a quarter of an acre, or even less, could, if that were held, depreciate the value of three-fourths of an acre of the lands around him, and the servient adjoining owners would have no practical defence, which might take away the dormant or prospective value of half the sites in the City of London. The only defence left to the servient owner seemed to be, in Mr. Gardiner's view, that the obstruction must be material, and that there must be some reasonable proportion between the interests: that is to say, if the damage to the dominant owner was only, say, from £50 to £100, while the loss by the restricting of the servient owner would be represented by thousands, then the Court would be very slow to grant an injunction. He did not understand Mr. Gardiner to say that there was a fixed limit; but there was, in some of the cases he quoted, and in some which he (Mr. Bedells) had referred to, a sort of guiding principle that, except when the damage to the dominant owner is really serious and substantial, there must be some relative proportion, or at any rate no vast disproportion, between the respective interests, if the Court is to be asked to grant an injunction.

Mr. J. H. Sherwin (Fellow) said that though he could not claim any special knowledge of the subject of light and air, he recognised the fact that this question was one full of difficulty and doubt to many who, like himself, had endeavoured to profit by the experience of others. The suggestion had been made that these questions should be referred to an official referee, but he believed he was

accurate in saying that the institution of Official Referees had not been a very great success, as the public did not enter into litigation with the desire of making that free use of their services which he believed, was intended when the appointments were first made. But there was another tribunal of which he had some knowledge, and in which the public had the greatest confidence, and that was a jury, and he considered that there need be no difficulty in getting these cases settled to the satisfaction of litigants. He himself would be very glad indeed to see the Lands Clauses Consolidation Acts applied in their entirety to the decision of difficulties regarding ancient lights, and for this reason, that the decisions were always quickly arrived at, and the cases were seldom carried to another court, thus involving less expense than was the case with most other methods of settling disputes. Again, the premises were nearly always viewed by the jury; their decision was given on the day of view, and, from experience, he found that the decisions of the under-sheriff and jury were almost invariably satisfactory to the parties.

Attention had been drawn by Mr. Howard Martin to the fact that a great many of the premises in the west-end of London would soon have to be rebuilt in consequence of the falling-in of the leases. He believed that encroachments in the way of ancient lights may have taken place in many instances through want of proper inspection. It was the duty of all persons who dealt with property to periodically inspect premises to see that no encroachments were ripening into value. The collection of ground-rents in London fell into the hands of solicitors who seemed to think that their duty ended there; but the reversioner might be damaged by the fact that encroachments were not taken notice of by a surveyor.

Reference had been made to the angle of 45 degrees.

Mr. Chatfeild Clarke, he believed, mentioned that that was no longer regarded as a rule; but he (Mr. Sherwin) thought, from recent experience, that as far as the public were concerned they still held tenaciously to the view that 45 degrees was the recognised rule not to be departed from. He would, therefore, refer to a decision reported in the *Law Times* of June 12*th*, 1880, p. 112, in the case of the *Ecclesiastical Commissioners* v. *Kino*, which had been previously mentioned, as showing that the 45-degrees rule was no longer of importance. The decision was given by Lords Justices James, Brett, and Cotton, and the following opinion was given by the first-named:—"The rule of 45 "degrees is a matter of very slight importance. It may "be an element in the case, but it is a very small one; "it is only to be used in the absence of any other mode "of arriving at a conclusion, but it is *no rule of law, no* "*presumption of law, and no real presumption of evidence,* "*except of the slightest kind.*" He mentioned those words because they were so very clear, and he thought, worth remembering.

There was another point which was worth mentioning, and that was that although these cases were always known as "Light and Air cases," there was at present absolutely no law with regard to access of air alone, notwithstanding the fact that air might in a very short time become of great consequence, seeing the crowded state of buildings in London. It was, no doubt, a fact that at the present time there was no statute or case-made law in favour of a right of air as dissociated from that of light.

The first case of the kind was well known as the "Windmill Case." The title was *Webb* v. *Bird*, and it was heard on April 26th, 1861. It was a claim for the obstruction of air to a windmill, and the Judge decided that it was incapable of interruption, and therefore no claim could be maintained.

The latest case on the subject was *Bryant* v. *Le Fever and another*, dated December 11th and 12th, 1878, before Lords Justices Bramwell, Brett, and Cotton, on appeal from a decision of Lord Coleridge (C.J.), when it was held that "the owner of a dwelling-house cannot claim as against "an adjoining occupier a prescriptive right, either at common "law or by statute, to have a free access of air to his pre-"mises." He mentioned that because the principle that air was of consequence had been touched by the Metropolitan Management and Buildings Acts Amendment Act, 1882 (45 Vic., cap. 14), section 14 requiring a clear space of 150 superficial feet in the case of 15 ft. frontages, and so on up to 450 ft. in frontages exceeding 30 ft. at the back of all new dwelling-houses erected on sites not previously occupied by buildings. No doubt, more would be heard of this question as the population grew.

The abandonment of light referred to in Mr. Gardiner's previous Paper was a most difficult subject, and the question, he was sorry to say, was not clear at the present moment. He was not ashamed when he heard experts own that it was impossible to make the decisions agree, and when Mr. Gardiner referred to the conflict that existed between the Judges themselves, to confess his own ignorance of these cases. But the abandonment of light was of some importance. In a typical case a frontager had left 5 ft. on the side of his semi-detached building, with the intention, when the time arrived for the house to be converted into a shop, of extending his building for the purpose of making a side-entrance to the shop, which, as they knew, was of great value in the neighbourhood of London. Two years ago he was astonished to find that where there had previously been a dwarf brick wall carried up to the roof of a stable by weather-boarding and forming his flank boundary, the weather-boarding had been removed and windows opened.

He was asked to give an opinion as to the course to be followed, but had some hesitation in advising.

Ancient lights were claimed, and the owner of what was intended to be the servient tenement then wrote to inquire how long there had been an ancient light, but no answer was given. The case was referred to counsel, whose opinion on the law as laid down as to the abandonment of light was as follows:—"In the case of *Lawrence* v. *Obee* (3 CAMPBELL), "where an ancient light had been filled up with bricks and "mortar for 20 years, it was held to be abandoned, and in "the report of the judgment no mention is made of the "nature of the obstruction, the Court holding that, 'from "'the window being shut up for 20 years, the case stood as "'if it had never existed.'"

"The case of *Moore* v. *Rawson* (3 BARNEWALL AND "CRESSWELL, 332), was also in favour of this contention, "as it was held that 'ceasing to enjoy destroys the right, "'unless at the same time when the party discontinues the "'enjoyment he does some act to show that he means to "'resume it within a reasonable time.'"

In the later case, however, of *Crossley* v. *Lightowler*, L.R., vol. iii., Equity Cases, 279; vol. ii. of Chancery Appeal Cases, 478 (and this was an important decision to which he wished to draw attention), Vice-Chancellor WOOD, in the lower court, says, in his judgment:—"How unjust "it would be if a man might say, 'I may lie by for any "'number of years, and then resume the works in ques-"'tion.'" In the same case, in the Court of Appeal, where the judgment of Vice-Chancellor WOOD was confirmed, the principle was laid down that the question of abandonment was purely a matter of fact to be judged upon the circumstances of each case. But it was not decided as a matter of principle that any number of years, even exceeding

twenty years, left it clear that there was an intention to abandon.

He mentioned this to show the extreme difficulty of arriving at a notion of what the law on the subject was.

Mr. J. Douglas Mathews (Fellow) said he supposed that every architect practising in London was more or less familiar with the question of light and air, but he could not help thinking that many of the difficulties were due to architects themselves not paying sufficient respect to rights of surrounding properties.

He could fully sympathise with Mr. Chatfeild Clarke, for he (Mr. Mathews), like many other architects, had had to cut down and mutilate buildings; but he considered that much litigation might be saved by a little forethought on the part of the architect. At the same time he could not lay the whole blame on them, for a great deal depended on the neighbours, and on the friendliness of those neighbours. It was a not uncommon thing now for an adjoining owner, directly he saw preparations for a new building, to imagine that his lights would necessarily be interfered with, and to give notice or perhaps go even farther without inquiring what was going to be done; some unreasonable persons even proceeding to extremes, when by a little arrangement the lights of the adjoining property could be considerably improved, although the ancient lights were slightly interfered with; but he had known people who insisted simply on precisely what they had before, neither less nor more, and nothing was more difficult in carrying out a building than to satisfy anyone to that extent. Therefore it very often happened that, by the action of such adjoining owners, litigation was almost necessitated, notwithstanding the desire

on the part of the building-owner to prevent it. He thought architects were often wrong in dealing with this question of light and air in a kind of stealthy manner. It appeared to him that in building, as in other matters, honesty was the best policy, and he thought if, before a building were commenced or carried up to any height, what was going to be done was made known to the adjoining owner, by notice to all concerned; that the drawings of the buildings could be seen on certain days and every explanation given, a great many difficulties would be removed, and then, if any objection arose, possibly such a Board as that which had been suggested might be appointed to consider the objections and to test their validity. If objections were made, they could be met probably, as Mr. Chatfeild Clarke had said, by some alteration of light, or by compensation, or if it were found to be one of those cases in which neither of these methods would satisfy, then it would be a fair case to take before a judge and fight out. Again, a Board consisting of experts would in a very few minutes be able to decide questions which a judge and counsel would take, perhaps, four or five days to thrash out and decide.

With regard to the question of judges viewing properties, he was concerned in a case of the kind two or three years ago in Mr. Justice Stephen's Court. The defendant had requested that the Judge himself would view the premises which were only two or three miles from the court, and on his (Mr. Mathews) advice the evidence of those working in the premises was taken, and the Judge was left to form his own opinion. The Judge went, and upon his return at once gave judgment. Without advocating the principle, no doubt at least a day or a day and a half of the time of the Court was saved, and it showed that in many cases a view was much better than mere evi-

dence, which, to say the least, was often misleading. He did not suppose any Judge was clearer in these cases than the late Sir George Jessel, who seemed at once to grasp the facts of a case, notwithstanding all the evidence by affidavits and examinations.

With regard to lateral light and air, he remembered a case some years since where a great deal of damage was done to lateral light by a building being carried up at right angles to the windows of a building in which he was concerned, and that case happened to be one not only of the diminution of light, but a very great diminution of air. It was in the northern part of the City where formerly there was a series of yards, and two rather large squares, the plaintiff's house being well lighted, and having a peculiar quantity of air, for the City of London. The defendant was going to carry up a high building, which would completely cut off the current of air. The counsel (the present Mr. Justice Chitty) advised that, notwithstanding his (Mr. Mathews) representation that the house would become unhealthy for occupation, he felt sure the Court would not deal with the lateral obstruction nor with the free passage of air. It happened that there was a certain amount of interference with direct light—not to the extent of the lateral damage—but sufficient to cause the Master of the Rolls, on Mr. I'Anson's report, to decide in favour of the plaintiff.

He thought he might say it was pretty clearly established now that interference with lateral light was considered no obstruction, unless there were some peculiar circumstances connected with it. He remembered a case, out of London, where a high building was erected and completely shut in a large house, and in point of fact rendered it almost uninhabitable. The damage to the prospect was undoubted, but the real case was whether there was any diminution of light, and, although the obstruction to the view rendered

the rooms gloomy, the damage to light could not be considered to be material.

This was a question of great interest, and if they, together with the architects, could do something in the direction that had been indicated, it would be very desirable. The matter was under the consideration of one of the Committees of the Royal Institute of British Architects, and he hoped some good might result. He thought these cases could not be better decided than by means of a referee (or two or three referees, as the case might be), whose decision would be equivalent to that of a judge.

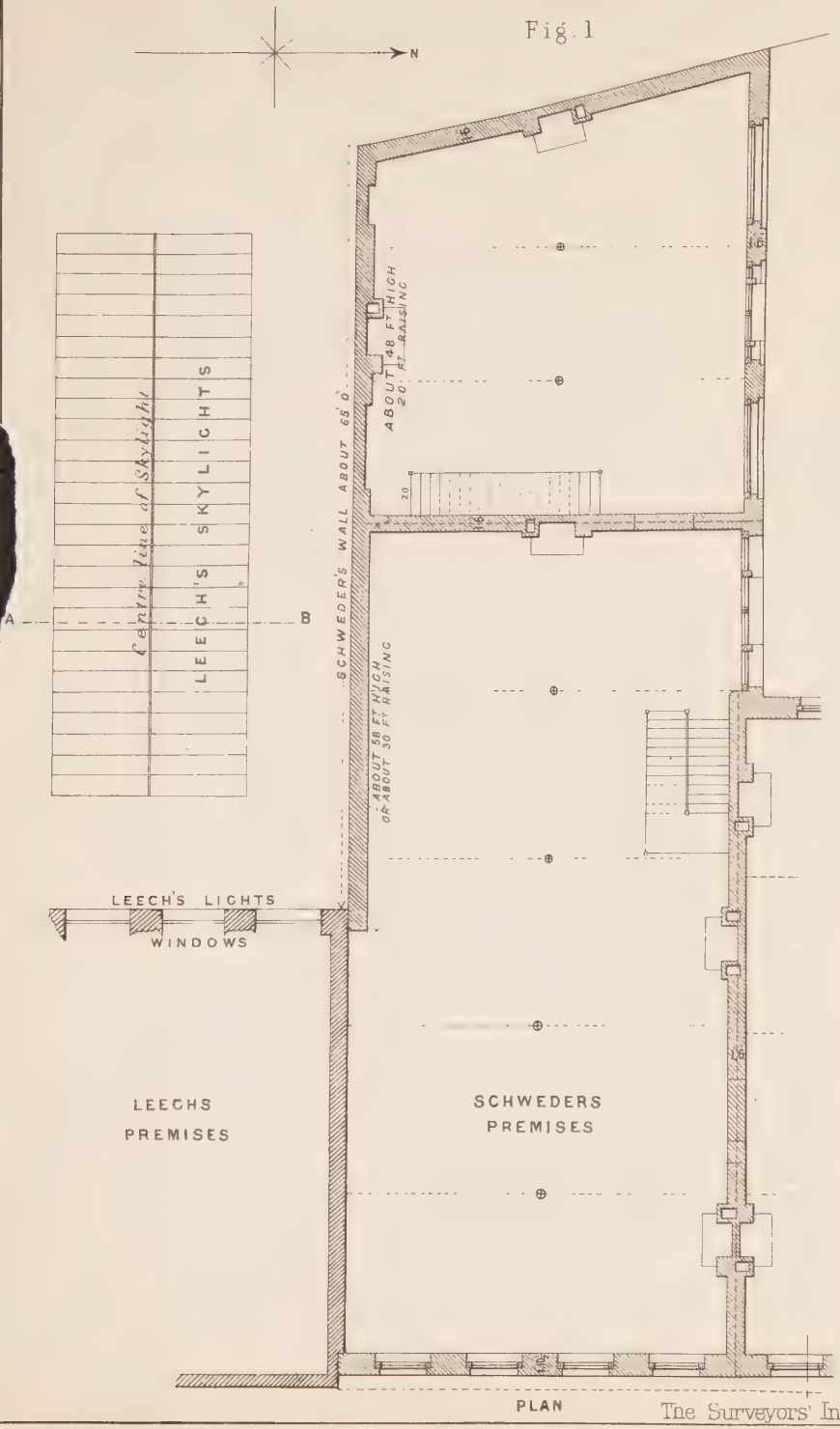
On the motion of Mr. J. E. Bankes (Associate) the discussion was then further adjourned to the next Meeting.

Plate 1.

Mr Dundas Gardiner's Paper on Points in the Law relating to Ancient Lights.
To illustrate Mr Chatfield Clarke's remarks.

LEECH V. SCHWEDER.

Fig. 1



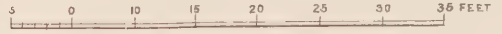


Fig 2

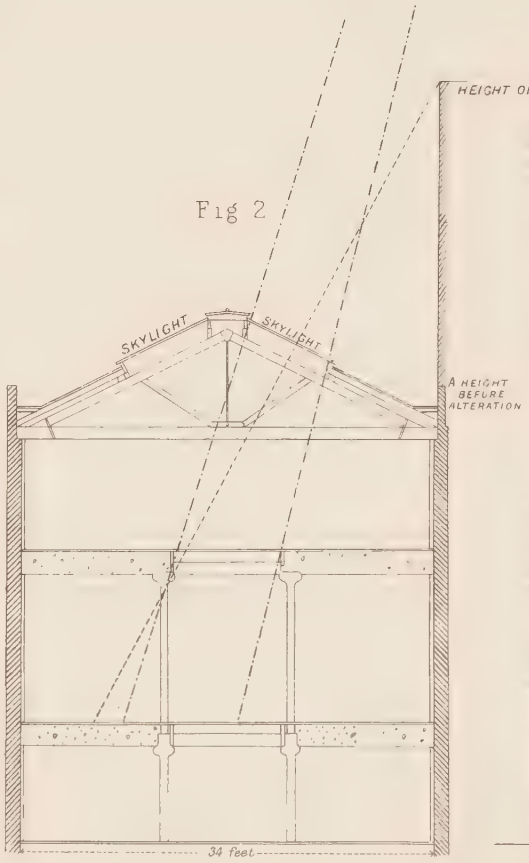
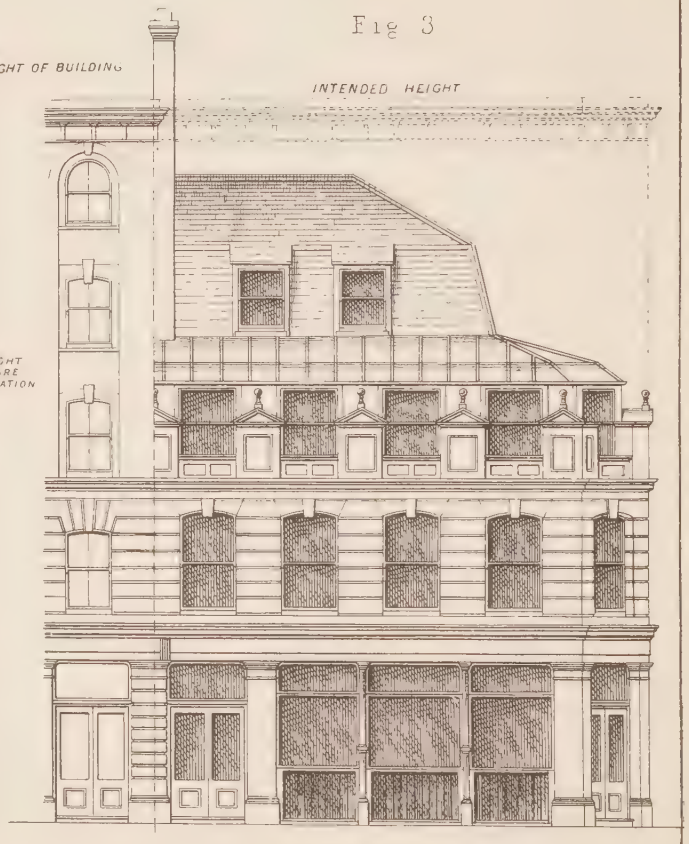


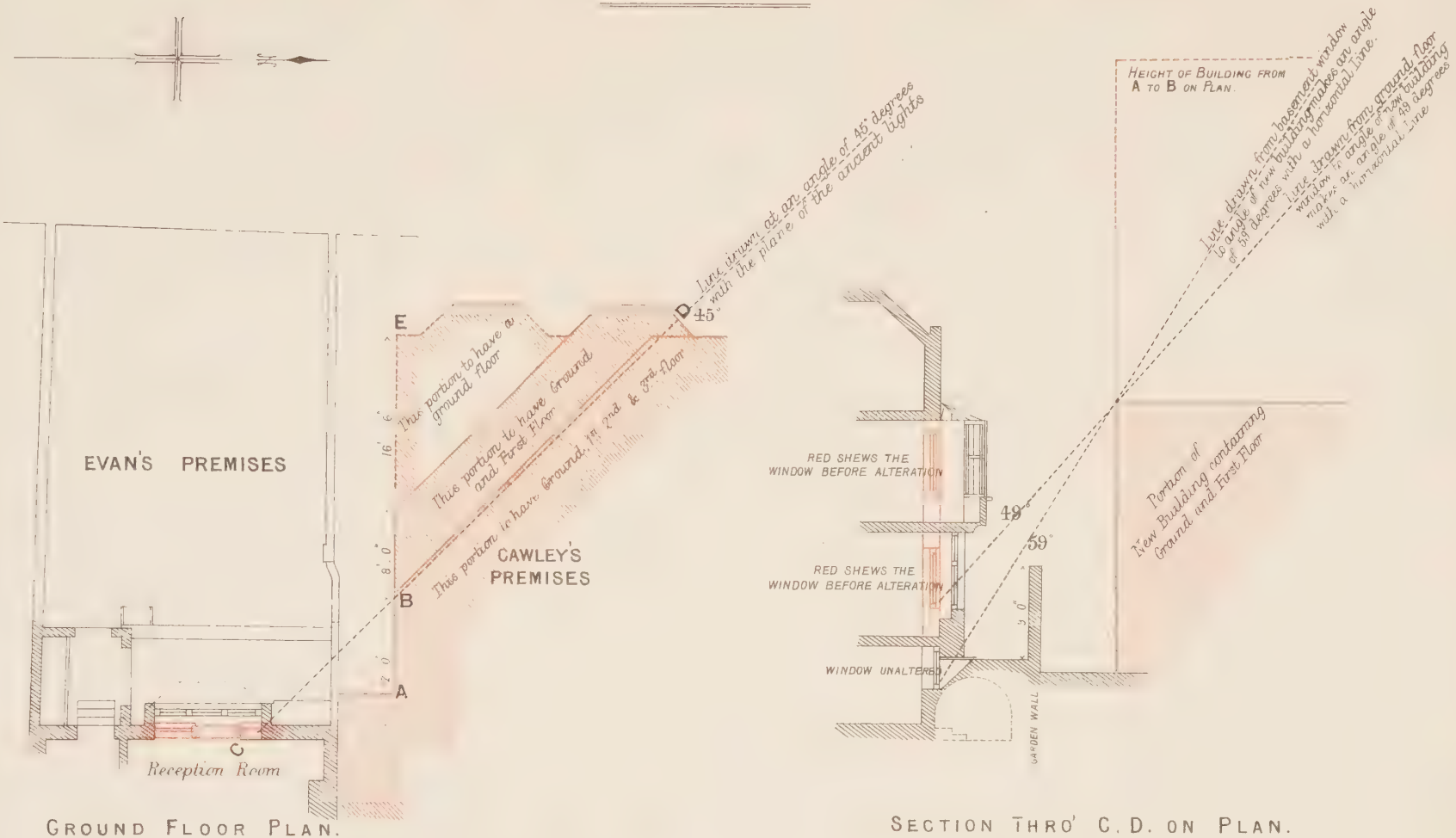
Fig 3



C. F. Kell, Lith. 8, Furnival St. Holborn, E. C.

Plate 2

EVANS V. CAWLEY


EVAN'S PREMISES
CAWLEY'S PREMISES
E
D
45°
A
B
C
16' 6"
8' 0"
17' 0"
This portion to have ground floor
This portion to have Ground and First Floor
This portion to have Ground, 1st 2nd & 3rd Floor
Line drawn at an angle of 45 degrees with the plane of the ancient lights
Reception Room
GROUND FLOOR PLAN.
HEIGHT OF BUILDING FROM A TO B ON PLAN.
RED SHEWS THE WINDOW BEFORE ALTERATION
RED SHEWS THE WINDOW BEFORE ALTERATION
WINDOW UNALTERED
49°
59°
3' 0"
GARDEN WALL
Portion of New Building containing Ground and First Floor
Line drawn from basement window to angle of new building makes an angle of 59 degrees with a horizontal line.
Line drawn from ground floor window to angle of new building makes an angle of 49 degrees with a horizontal line
SECTION THRO' C. D. ON PLAN.

NOTE.
Black lines shew existing work
Strong Red lines shew the ancient lights
Pink lines shew the Proposed New Buildings
Lines shewn thus - - - shew horizontal & vertical angles.

SCALE OF FEET
FEET 10 5 0 10 20 30 FEET

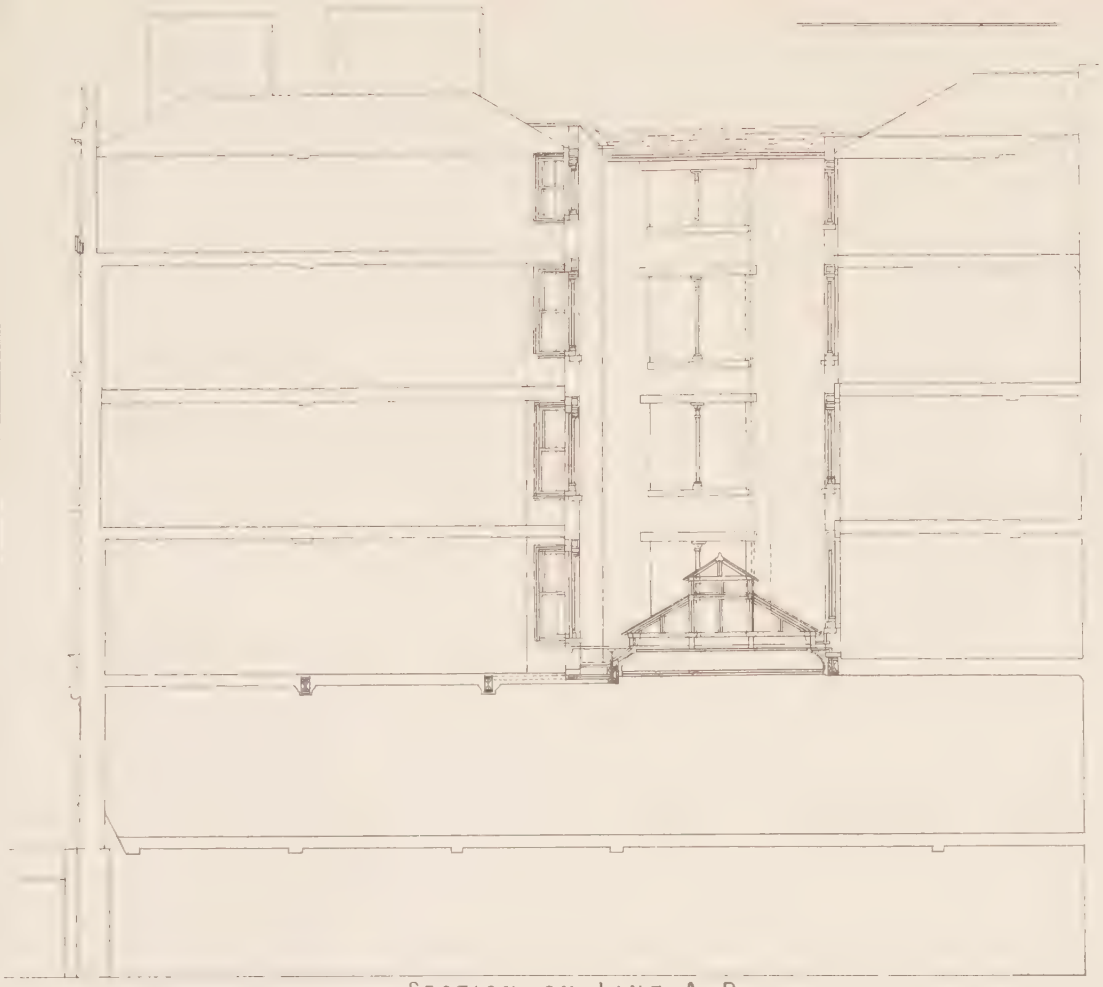
C.F. Kell lith. 8 Furnival St Holborn E.C.

Mr Dundas Gardiner's Paper on Points in the Law relating to Ancient Lights
To illustrate Mr Chatfield Clarkes remarks.

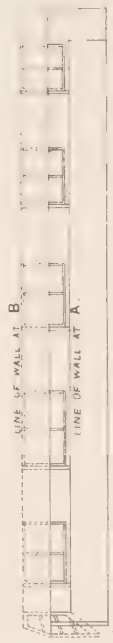
To face Page 265 Vol XX

Plate 3

THE NATIONAL PROVINCIAL PLATE GLASS INSURANCE COMPANY.
v
THE PRUDENTIAL ASSURANCE COMPANY

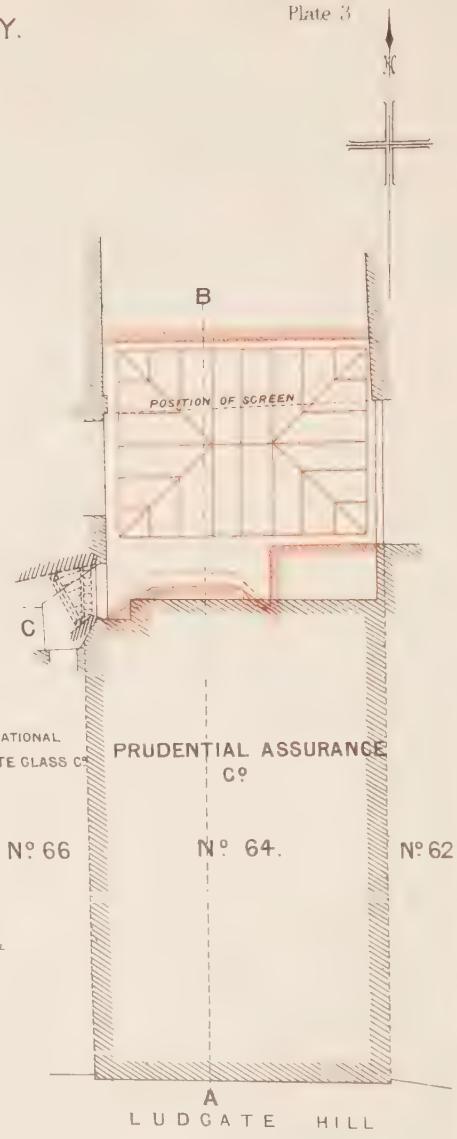


SECTION ON LINE. A. B.



GROUND FLOOR LINE

ELEVATION.



NOTE *The black lines in No 64 indicate the position of walls &c before the old building No 64 was pulled down.*
The Red lines indicate the outline of the new building No 64 as rebuilding
The Red dotted line shews the bay before the setting back done out of courtesy to the owners of No 66
Black lines shewn thus____ shew ancient skylight &c & window of No 66 as existing before the rebuilding within the last twenty years and is from information supplied no consideration for such lights being admitted by the Prudential Assurance Co

SCALE OF FEET

5 4 3 2 1 0 5 10 15 20 25 30 35 40 FEET

C.F. Kell lith. 8 Furnival St Holborn E.C.

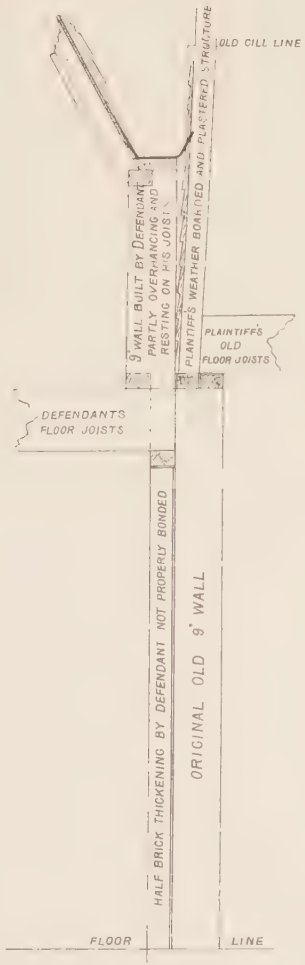
"HAZELL V. BARKER".

Plate 4

ACTION TO RESTRAIN DEFENDANT FROM BLOCKING UP NEW OPENINGS IN SUBSTITUTION OF ANCIENT LIGHTS.

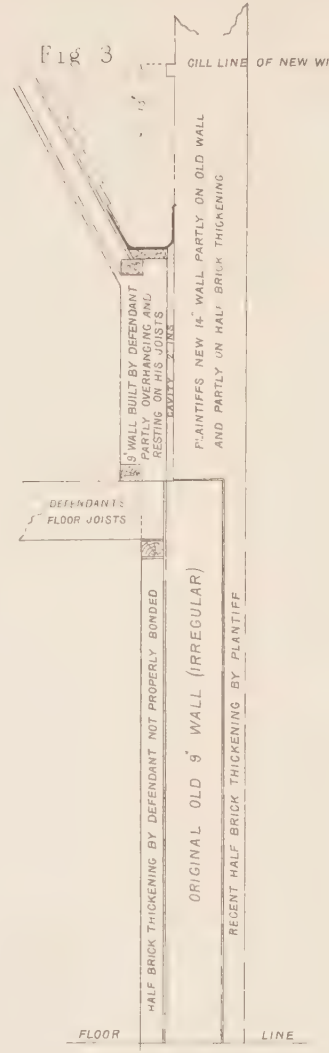
BEFORE VICE CHANCELLOR MALINS — *FEB.Y & MARCH 1870.*
BEFORE THE LORDS JUSTICES ON APPEAL — *FEB.Y 1871.*

Fig 2


OLD CILL LINE
9" WALL BUILT BY DEFENDANT PARTLY OVERHANGING AND RESTING ON HIS JOISTS
PLAINTIFFS WEATHER BOARDED AND PLASTERED STRUCTURE
PLAINTIFFS OLD FLOOR JOISTS
DEFENDANTS FLOOR JOISTS
HALF BRICK THICKENING BY DEFENDANT NOT PROPERLY BONDED
ORIGINAL OLD 9" WALL
FLOOR
LINE

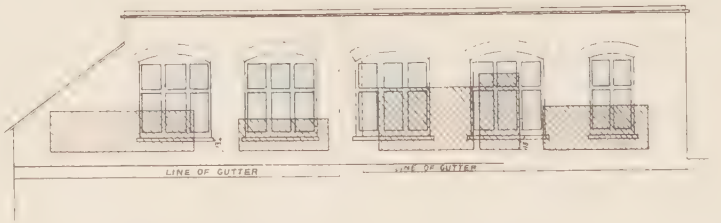
OLD.

Fig 3


CILL LINE OF NEW WINDOWS
9" WALL BUILT BY DEFENDANT PARTLY OVERHANGING AND RESTING ON HIS JOISTS
CAVITY 2" INS
PLAINTIFFS NEW 14" WALL PARTLY ON OLD WALL AND PARTLY ON HALF BRICK THICKENING
DEFENDANTS FLOOR JOISTS
HALF BRICK THICKENING BY DEFENDANT NOT PROPERLY BONDED
ORIGINAL OLD 9" WALL (IRREGULAR)
RECENT HALF BRICK THICKENING BY PLANTIFF
FLOOR
LINE

NEW.

Fig 1



ELEVATION.
(1/16" SCALE)

NOTE *The blue colour shews the new openings*

C. T. Bell lith. 5 Furnival St. Holborn E.C.

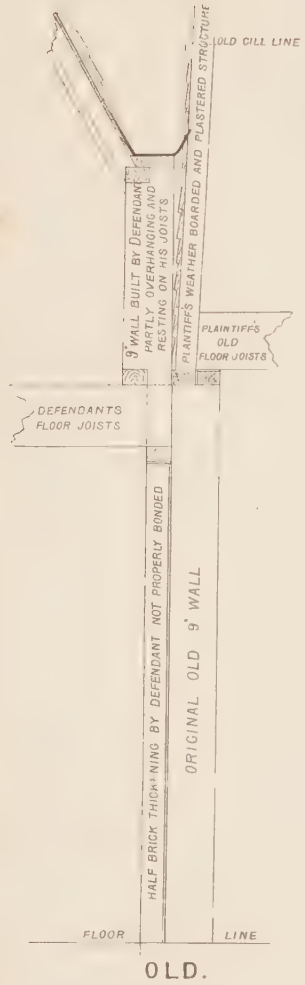
"HAZELL V. BARKER".

Plate 4

ACTION TO RESTRAIN DEFENDANT FROM BLOCKING UP NEW OPENINGS IN SUBSTITUTION OF ANCIENT LIGHTS.

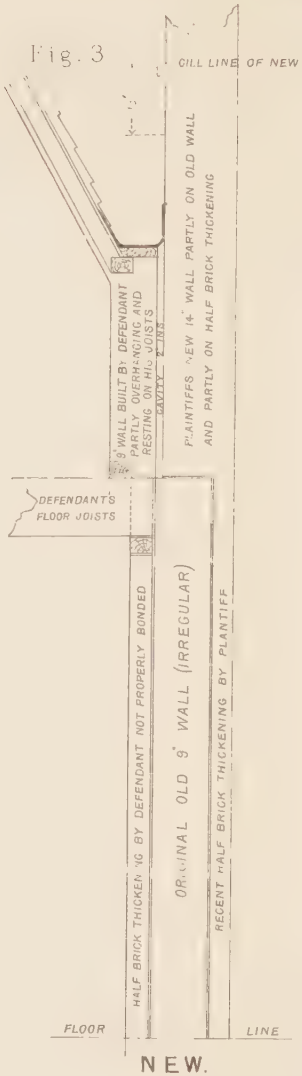
BEFORE VICE CHANCELLOR MALINS — FEB.Y & MARCH 1870
BEFORE THE LORDS JUSTICES ON APPEAL — FEB.Y 1871.

Fig. 2


OLD CILL LINE
9" WALL BUILT BY DEFENDANT PARTLY OVERHANGING AND RESTING ON HIS JOISTS
PLAINTIFFS WEATHER BOARDED AND PLASTERED STRUCTURE
PLAINTIFFS OLD FLOOR JOISTS
DEFENDANTS FLOOR JOISTS
HALF BRICK THICKENING BY DEFENDANT NOT PROPERLY BONDED
ORIGINAL OLD 9" WALL
FLOOR LINE

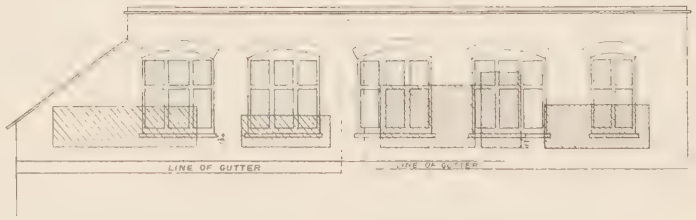
OLD.

Fig. 3


CILL LINE OF NEW WINDOWS
9" WALL BUILT BY DEFENDANT PARTLY OVERHANGING AND RESTING ON HIS JOISTS
CAVITY 2 INS
PLAINTIFFS NEW 14" WALL PARTLY ON OLD WALL AND PARTLY ON HALF BRICK THICKENING
DEFENDANTS FLOOR JOISTS
HALF BRICK THICKENING BY DEFENDANT NOT PROPERLY BONDED
ORIGINAL OLD 9" WALL (IRREGULAR)
RECENT HALF BRICK THICKENING BY PLAINTIFF
FLOOR LINE

NEW.

Fig. 1



ELEVATION.
(1/16 SCALE)

NOTE *The blue colour shews the new openings*

C. F. Nell Lith. 5, Furnival St. Holborn E.C.

Plate 5

rdiner's Paper on Points in the Law relating to Ancient Lights.
To illustrate Professor Kerr's remarks.

SKY AREA;
TRUCTION.
TH CASES.)

CASE OF A VERTICAL WINDOW.

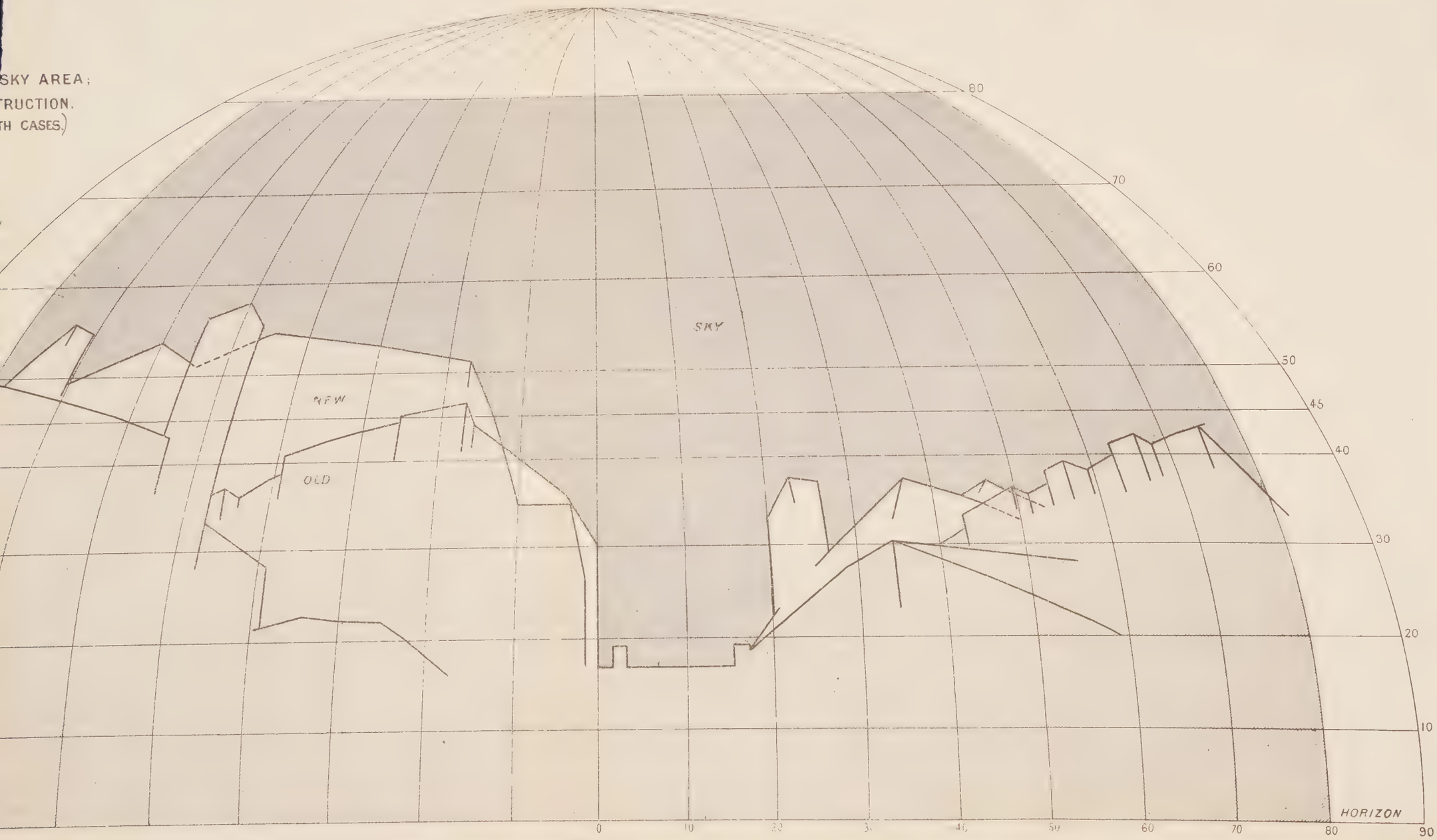


Figure 2

CASE OF A SKYLIGHT.
OBSTRUCTION 5 PER CENT.

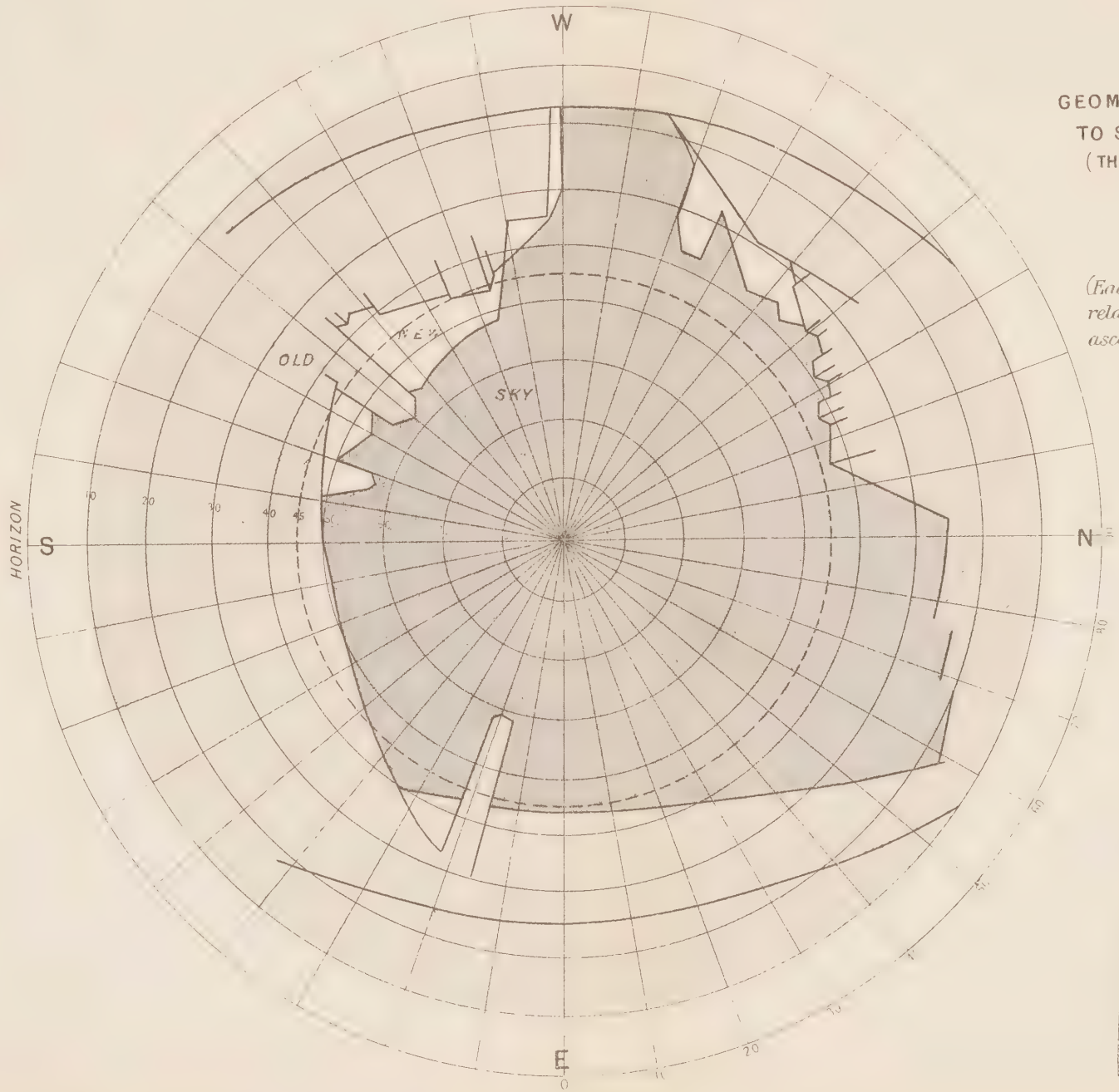


Figure 1

GEOMETRICAL DIAGRAMS
TO SHOW THE EFFECT OF O
(THE SUBJECT THE SAME IN

(Each Section of Sky has its relative value mathematically ascertained.)

No. 259.

AT

THE ORDINARY GENERAL MEETING,

Held on Monday, April 16th, 1888.

ROBERT COLLIER DRIVER (VICE-PRESIDENT) IN THE CHAIR.

The adjourned discussion on the Paper entitled "Points in the Law relating to Ancient Lights," by Mr. DUNDAS GARDINER (Barrister-at-Law), read at the Ordinary General Meeting of Monday, March 5th, 1888, was resumed by

Mr. J. E. BANKES (Associate), who said that there were two matters of general importance with which he proposed to deal—first, the question raised by Mr. CHATFEILD CLARKE who proposed such an alteration of the law as would enable a man (on paying compensation) to obstruct the lights of his neighbour as a matter of right; and, secondly, the question, also raised by Mr. CHATFEILD CLARKE as well as by other speakers, namely, whether or not the present tribunals provided a satisfactory means of dealing with questions of light and air, or whether a special tribunal ought not to be appointed to deal with such questions.

With regard to the former, the proposal to enable a man to obstruct his neighbour's ancient lights as a matter of right, on paying compensation, involved wide considerations with which he did not now propose to deal; but, in so far as the principle was applicable to the law of light and air, he thought that any such alteration in the law would really be a retrograde movement. The history of the law of light and air showed clearly that the tendency of modern legisla-

tion and modern decisions had been to increase the right rather than to diminish it.

Previous to the passing of the Prescription Act, the right, in so far as it depended on prescription, depended on the theory of lost grant, and therefore, assuming that it could be shown in any case that the dominant tenement had been built within the memory of man, then the right could not have been substantiated; and, further, as was pointed out by the writer of the Paper, inasmuch as the principle depended on the question of lost grant, the right claimed could only be such a right as had been originally enjoyed by the dominant tenement. The Prescription Act altered the law in that respect, and altered it very much in favour of the owner of the dominant tenement by providing that if the right to light had been enjoyed for 20 years it should be an absolute right, and also that the right of the dominant tenement was to be such a right as was enjoyed at the time of action brought. The Prescription Act also abolished all custom to the contrary.

Now, in the City of London there had previously been a custom that a person might obstruct ancient lights provided he built upon ancient foundations, which custom was established so long ago as 1737 in the case of *Plummer* v. *Bentham*, an action somewhat celebrated from the fact that the Recorder of London came and testified to the Court, *ore tenus*, and laid down the custom to be, "That if any person "has a messuage or house in the City of London adjoining "or contiguous to another messuage or house or to the "ancient foundations of one in the City, which former house "has ancient lights or windows fronting opposite to or over "such other adjoining or contiguous messuage or house or "ancient foundation of one; such other person, owner of "the latter messuage or house or ancient foundation of one, "may well and lawfully erect such messuage or house, or

" rebuild upon the ancient foundations of such his adjacent " or contiguous messuage or house any new messuage or " house, to any height that he shall please against and " opposite to the said ancient lights and windows of such " first-mentioned neighbouring messuage or house to which " his messuage or house or ancient foundations of a messu- " age or house are so contiguous or adjoining, and thereby " darken and obscure such ancient lights and windows of " such first-mentioned neighbouring house having such " ancient lights and windows, unless there has been some " writing, instrument, or record of an agreement or restric- " tion to the contrary." Thus it would be seen that in the City of London, until the passing of the Prescription Act, this custom enabled the owner of a dominant tenement to build so as to absolutely obstruct ancient lights, provided he built upon ancient foundations.

He could not but think that any such innovation of the law as was proposed by Mr. Chatfeild Clarke would be retrograde, and it ought to be borne in mind also in considering this question to what extent this alteration of the law would go. If, for instance, the law allowed a man to obstruct ancient lights to any extent, provided he paid compensation, that, in substance, was giving him the right to purchase his neighbour's property, upon paying compensation; for in many cases it would be possible for a man to force his neighbour to sell his premises by completely obstructing not only his light but his air, and thereby rendering his premises absolutely uninhabitable or useless to him; if that were permitted the principle would be carried, he thought, in the case of light and air very much further than it had been carried hitherto in our law. In cases where land was allowed to be taken for the purposes of railways or other public works, the ruling principle was always this—that the taking was primarily for the benefit of the public, and

only secondarily for that of the individual; whereas in cases of light and air the process was generally reversed, the obstruction of ancient lights being primarily for the benefit of the individual, and secondarily only for that of the public.

The case of Long's Hotel, in Bond Street, had been mentioned as an example of the injustice of the present law. It was true that a new building was mutilated in order to provide for the non-interruption of ancient lights; but, as it appeared to him, that was no injustice. The hotel had existed for many years in its then state, interfering with nobody's light, and it was only when the proprietor wished to increase his hotel for his own benefit, that any obstruction of light arose. It would be carrying the principle much further than it had been carried yet if, by an alteration of the law, it were provided that a person might obstruct ancient lights as a matter of right, on paying compensation. It was not the mere fact that a man had acquired a right to an ancient light which enabled him to prevent his neighbour building. The building of the neighbour must be such as to render the dominant tenement less convenient or less valuable as a dwelling-house or place of business, and therefore the law only allowed compensation or interfered by injunction in cases where it was clear that actual damage would be done. Again, under the present law there was a wide discretion given to the Courts, in all cases, as to whether they should grant an injunction or whether they should allow damages. During the discussion, the question had arisen whether there was any rule laid down by the Courts on this point. He had not been able to find any such rule; but he thought the late Mr. Justice Pearson, in deciding the case of *Holland* v. *Worley*, 26 Ch. Div., p. 578, had put the case very clearly when he said, "In cases where the injury to the plaintiff would be less "serious where the Court considers that the property may

" still remain the plaintiff's and be substantially useful to " him as it was before, and the injury therefore is one of a " nature that can (without taking the plaintiff's property " from him) be compensated by money, then the Court, if it " thinks right, may exercise the discretion given it by the " Act."

Looking at the result of any change in the law in the direction advocated by Mr. CLARKE, and bearing in mind that the Courts only interfered when actual damage was proved, and that they had a discretion to grant damages instead of an injunction, he was opposed to any alteration in the existing law.

With regard to the question whether or not a special tribunal should be provided for trying this class of case, it must be borne in mind that the mere creation of such a tribunal would not be sufficient to satisfy the requirements laid down by Mr. CHATFEILD CLARKE, unless it were also rendered obligatory that every litigant should take his case there. If it were to be an optional tribunal, the position would be exactly the same as at present, because now, if both parties consented, it was possible to try any case of light by any tribunal that the parties might choose; and therefore this proposition necessitated that, if a special tribunal were to be established, it must also be provided that every case of light and air must be there tried.

In arriving at a conclusion in this matter it would, he thought, be useful to consider what the tribunals were before which it was possible to take such cases now.

The tribunals might be classified as follows:—First, arbitration by consent; secondly, trial by a common jury; thirdly, trial by special jury; fourthly, by a judge alone; fifthly (in cases where a man had no right to a jury, and by order of the Court), by a judge with assessors, or by an official referee with assessors, or by a special referee with

assessors, or by a special referee alone. In addition to all those methods of trial, there was a method provided by the Judicature Act of 1873, Sections 56 and 57, the first of which provides that, subject to the right which any litigant may have to a jury, the Court may refer any question or issue of fact for report to any special or official referee, and the second which provides that, in any matter requiring scientific or local investigation, the Court may order trial of the same before either an official or special referee.

He did not propose to discuss those separate methods one by one. On the last occasion a Member had advocated trial by jury. For a certain class of case that would, probably, be an extremely good tribunal. There might be cases, however, the details of which required skilled minds to comprehend and to pass a correct and accurate judgment upon, and it appeared to him that a very proper form of tribunal was provided for trying such cases, viz., a judge with assessors. That method of trial had not been largely, if at all, adopted, possibly owing to the wording of the Supreme Court of Judicature Rules. The question depended upon whether a litigant could satisfy the Court that his opponent had no right to a jury, and that the matter in hand was one requiring scientific or local examination. He had looked through the cases, and had not been able to find any that bore directly on the case of light and air; but he could not help thinking that, if a test case were judiciously chosen it would be held that it came within the Rules, and that an order would be made for trial before a judge with assessors.

Assuming, for the sake of argument, that none of the modes of trial now provided were satisfactory, what did the provision of a special tribunal mean? In the first place, it meant that every litigant must be forced to go there; for example, one whose premises might be situated in the north

of England would be forced to come to this special tribunal, which would, probably, hold its sittings in London. It was true that an example of a special tribunal existed in the Railway Commission, but if the principle were to be extended to cases of light and air it would be equally applicable to such questions as patents, or, say, of nuisance arising from the pollution of rivers, or, indeed, to any matters in which scientific evidence must necessarily be given.

Again, it was argued that a special tribunal would effect a considerable saving of time. With this he was unable to agree, for it appeared to him that no one would suggest a special tribunal without some Court of appeal being provided for; for probably no one would be content to try his case before a special tribunal from which there was no right of appeal. If there were such a right, it followed that evidence must be taken before the special tribunal, the taking of which, if the special tribunal were composed of persons who were not cognisant of the laws of evidence, would occupy a very much longer time than at present.

Upon the whole it appeared to him that when the question of a special tribunal was looked into, the advantages to be derived from it were really extremely small, and that the present tribunals were (or at any rate could be easily rendered) amply sufficient to meet every requirement.

The question of 45 degrees had been referred to by several speakers, who differed as to whether or not there was any settled or definite rule on that point. To him it was clear there was not. The best expression of opinion on the matter which he had been able to find was that of Lord Selborne, in the case of the *City of London Brewery Company* v. *Tennant*, L.R., 9, Chancery Appeals, p. 220, as follows:—"There is no positive rule of law upon that "subject: the circumstance that 45 degrees are left unob-

" structed being merely an element in the question of fact " whether the access of light is unduly interfered with. " I am of opinion that if 45 degrees are left there is some " *primâ facie* evidence of the light not being obstructed to " such an extent as to call for the interference of the Court " —evidence which requires to be rebutted by direct evi- " dence of injury, and not by mere exhibition of models."

Referring to the question of lateral obstruction, one speaker had said that it would be extremely serviceable to Members of the Institution if a collection of cases in which lateral obstruction had been dealt with could be made. He did not think in the Reports that any number of cases dealing with that question would be found, because the question of whether or not there had been any lateral obstruction was, of course, a question of fact with regard to which, as a rule, cases were not reported. He came across one case incidentally where it appeared that the question of lateral obstruction was the issue—viz., the case of *Holland* v. *Worley*, to which he had before referred; and in the before-mentioned case of the *City of London Brewery Company* v. *Tennant*, Lord SELBORNE had also dealt with the question of lateral obstruction, and had said:—" I quite " agree with Lord CRANWORTH, in *Clark* v. *Clark*, that a " greater amount of evidence is required to prove a material " injury to light by lateral or oblique obstruction than is " necessary in the case of a direct obstruction; and that, " more especially, when the buildings to the side are not " erected upon what was previously open space, but upon a " space already, to a great extent, obstructed by buildings, " though these buildings were, indeed, of less height."

Professor R. KERR (Visitor) thought this subject had been rightly described by several speakers as one of vital importance to the improvement of towns, and therefore in an

Institution composed of practical men there was no subject, perhaps, of its class that could be more advantageously discussed.

He did not profess to be in any respect a lawyer, and in his contribution to the discussion he should speak, therefore, merely as a practical man.

The first thing for surveyors to thoroughly understand was what the law was intended to mean from a practical point of view, and in order to make this clear he would read some of the clauses of the Prescription Act, on the meaning of which he hoped to be able to put a practical construction. The most important clauses were as follows, viz. :—

Section 3. "When the access and use of light to and for "any dwelling-house, workshop, or other building shall have "been actually enjoyed therewith for the full period of 20 "years without interruption, the right thereto shall be "deemed absolute and indefeasible." That seemed to him to be an expression of an unconscious feeling on the part of the framers of the Act—of a principle which was now perfectly clear, though, perhaps, not so to them at the time—that any man's freehold in this country was charged, amongst other things, with the obligation of being neighbourly towards his neighbours. Therefore, in a town—where freeholds were small and were intended to be covered to a very large extent or altogether by buildings—in such circumstances the unconscious feeling was that every man had an obligation to every other man to respect that which was essential to the enjoyment of a building and which could not be secured unless by the mutual consideration of the freeholders, namely, the light from the sky.

That being so, he would come to the next clause, which stated that the interruption which should be recognised must be an interruption extending over (and he called attention to the formality of this) extending over a whole year

after notice given thereof, "and of the person making or "authorising the same to be made." That again recognised an obligation most forcibly, for if a man's freehold was to be his absolute possession without reservation, why were formalities necessary? The very institution of those formalities recognised the mutual relationship and interdependence of neighbours in reference to the light of heaven. But there was a third element which had not been mentioned by Mr. Bankes to-night, namely—given the two principles stated in the text of the Prescription Act, their application was to be regulated by the third principle *de minimis non curat lex*—that the law would not concern itself with trivialities—that there must be established the existence of a substantial obstruction.

Those being the principles on which the law was established, he would consider the question of tribunal, also from a practical point of view. Now, looking at the operation of the law with reference to questions of ancient lights, no practical man would dispute the proposition that the decisions of the Courts were at least disappointing, if not practically a failure. The arguments which were stated by the judges in their decisions were always (except in so few cases as to prove the rule) directed to the question of principle, in which they were quite at home. So long as it was a question of principle and interpretation of the law, after a due explanation of facts, no doubt the trained intelligence of the judges was all that was required; but directly the case was complicated by matters of detail, and considering the way in which these matters were brought forward, each counsel keeping back all that he chose and exaggerating all the points in favour of his case, and the judge having dust thrown into his eyes from both sides, how could any court be blamed for coming to a decision which did not satisfy practical men? But he was sure learned gentlemen would support him in

remarking that on a difficult question of this kind it was one of the advantages of the English courts that the necessity for new statutes was avoided by the judges taking upon themselves to establish what was called "case law" as distinguished from "statute law," so that in matters of that kind the judges always endeavoured more and more to get out of any technical difficulty by establishing principles of substantial justice.

One incident connected with this tendency to so interpret the law had been alluded to several times in reference to granting compensation in lieu of injunction; and he thought that most surveyors would hold to the opinion that practically, almost all cases were capable of being dealt with by compensation. As regarded the abstract justice of compelling a man to sell his property, he did not think that was the right way to put it. How was it that the owner of the dominant tenement acquired this easement? It was by statute; and therefore, if by statute he had acquired it, why should it not be purchasable by statute? There were many practical questions beyond the scope of the lawyer's experience—such as, the nature and position of the windows, their height and distance from the ceiling and from the floor; practical questions, all of them affecting the issue whether the right of the dominant owner was one which ought to be allowed to exist while doing injury to the neighbouring building.

There was another point which had not been mentioned that night, and that was the alteration of the dominant lights, which could almost always be effected. The light obtained by a room through a window was obviously in proportion to the area of the window. If, therefore, a quarter of the light were taken away from a window, all that was necessary was, broadly speaking, to add so much to the size of the window, and thus restore the lighting of

the room; and he saw no reason why the law should not compel a man, within certain limits, to accept an alteration of his easement, *plus* reasonable compensation. He was happy to say that many of the judges had agreed in that view of the case of late years, though they had not felt able to give effect to it in any settled way in their judgments.

Now, the angle of 45 degrees had been alluded to several times. He would not say much upon it, but would point out, once more, its absolute valuelessness. There was no reason for it geometrically. The original reason for recognising the angle of 45 degrees was that a sort of regulation prevailed under certain clauses of the Building Act of London, having no reference to the alteration of ancient lights but to the ventilation of towns, to make the width of the street about the same as the height of the houses; and a similar regulation existed in Paris, the height of the houses, with reference to the width of the streets, being tabulated in Parisian law, and difficulties of this kind thus avoided. If an illustration were wanted of the difficulty of applying an angle of 45 degrees with precision, all that was needed was to take Mr. Chatfeild Clarke's Plate No. 2, a case of which he (Professor Kerr) happened to know something. What Mr. Chatfeild Clarke stated was, that the builders of the servient premises had, of their own accord, cut off the building at an angle of 45 degrees laterally, and had then gone to the court. Now, the fact, he believed, was that they cut off the building in that way laterally at an angle of 45 degrees by constraint, a thing he never heard of before, and had to go to the court notwithstanding.

If the rule of 45 degrees vertically be established, why not laterally? One eminent surveyor in London had gone so far as to say that the owner of the aggrieved window was entitled to describe a cone at an angle of 45 degrees round

the centre (or the cill) of the window, and that cone would be the limit; which was carrying the matter to such an extent that no practical man could agree to it; so that the principle of an angle of 45 degrees (which properly speaking was only halfway between *all* and *nothing*) would, if pushed to logical extremities, lead into difficulties from which there was no possible escape.

The only way, in his humble judgment, to ascertain the facts in regard to obstruction of light was by geometrical diagrams. He had, therefore, brought with him two diagrams which he had been accustomed to use for many years. One of them (Plate V., fig. 2) was a diagram of sky-area referring to an ordinary upright wall window. The thin shading represented the old sky-line, and the dot shading represented the encroachment on the sky. The second diagram (Plate V., fig. 1) referred to the case of a skylight. The sky was divided into sections, and by means of such a diagram one could calculate the value of the area of sky formerly exposed, and then that of the proportion thereof obstructed, which gave the percentage beyond all sort of controversy. One diagram (Plate V., fig. 2), was taken from the sash-fastening of the window, as the centre representing the whole of the window, and the other (Plate V., fig. 1), for the skylight, was taken at a corresponding point. Probably, in the latter case, the level of the ceiling would generally be the level at which the light became available. But if the question in dispute were one which might be called a special user, as, for instance, in the case of a watch-maker's bench, where the spot was determined at which the work was done, then, instead of taking the point of view at the surface of the glass, of course it would be taken at the point which was available for the work. This was, however, merely a question of detail, the principle being always the same.

These diagrams answered three questions which were always involved in cases of disputed obstruction of ancient lights. First, whether there was any obstruction at all. There were many cases in which there was absolutely no obstruction at all; for unless a portion of sky-area, which was the source of light, were obstructed, there was no obstruction to light. Secondly, the diagrams determined the *quantum*, which was usually the question in dispute; for it was generally found that the obstruction was admitted, and the difficulty was really to determine whether the *quantum* was material. But this left the third question still open for inquiry, viz., the effect of that proportion of obstruction. He did not think there was any other mode of arriving at a scientific conclusion than by means of such diagrams, which were easily made and always conclusive so far as they went.

He thought that lawyers and surveyors seemed to be all agreed that these were matters rather for experts than for lawyers, and the question was how to introduce the expert element; and he should not be surprised if these discussions became the means of bringing about, not a change in the law, for he did not think that was possible, but a change in the administration of the law. The principle of assessorship was already recognised by law—the last speaker had explained that admirably. A special tribunal was neither desirable nor possible. The old tribunal of the Official Referees, under the Building Act, was not found to answer well in London. The Metropolitan Board and District Surveyors, until a few years ago, were very anxious to induce the Legislature to establish a Special Police Magistrate in London for building cases, which was never done, and, he thought, would never have succeeded. But if the principle were accepted that the tendency of case-made law, in these difficult matters, was steadily towards the amelioration of technical difficulties and the establishment of substantial

justice, they could go, not to the Legislature, but to the Judges, and ask them to introduce the principle of assessorship into this particular kind of business. Perhaps some learned gentleman would advise how this could best be done. He might explain his view of the case by saying that the first principle of the administration of justice in the courts of law was that the Judge was supreme, and that from his decision, within proper limits, there should be no appeal on the spot. That was found to be inconvenient in technical cases, and the Legislature had passed an Act of Parliament some years ago, whereby a Judge was enabled to call in special experts to sit on the bench, as Trinity Masters did in the Admiralty Court.

He did not wish to take away from the Courts the business of ancient lights, for that would be to discredit the Courts, and he thought that as practical men they could hardly venture to ask the Judges to establish a Court of Surveyors to deal with all questions of ancient lights; but the principle, it seemed, was already established that a Judge might call in an assessor to sit with him and advise him on those points which a legal Judge was not likely to understand of his legal knowledge.

Mr. Gardiner asked what difference it made whether the assessor were sitting by the side of the Judge, or whether the Judge referred the point upon which he wanted information to the assessor away from the Court, as was now continually being done.

Professor Kerr said that then the experts did not hear the evidence; but he did not care in what way the matter was tried provided the expert was properly brought into it, and what he contended was that instead of it being necessary to go to the Legislature, as was frequently proposed, for a

new statute on ancient lights, there was already a basis upon which to go, not to the Legislature, but to the Judges, and he proposed that Societies of Architects, Surveyors, and Builders might, with great force, memorialise the Judges, asking them to allow the expert element to be introduced more intimately into the decisions of questions of ancient lights, because of the peculiar character of those questions, affecting as they did the welfare of towns.

The beautification of the towns seemed to Mr. Chatfeild Clarke to be the ground on which some modifications should be introduced, but he (Professor Kerr) preferred to say it was on account of the increase in value of the town, and the right which the public at large (as represented at the moment by the individual building) had to improve their property. The mere additional height of storeys, of itself raised the question of ancient lights, and even on that ground alone, which was not one of improvement of the mere financial value of the ground, he thought a modification of the operation of the law might be asked for.

Mr. W. Woodward (Professional Associate) mentioned that, in a sanitary case in which he was himself engaged, scientific witnesses were ready to give evidence; but Mr. Justice Kekewich said, "I shall not trouble these scientific "witnesses. I shall appoint my own expert, putting before "him certain questions on which he will report to me." Thus the whole body of scientific evidence was got rid of. The expert viewed the premises, and reported to Mr. Justice Kekewich on the points put before him.

Mr. Alexander Payne (Fellow) thought that all would agree that it was extremely useful when lawyers and surveyors met and exchanged ideas on such a difficult question as that under discussion. There were some things in the

Paper which showed that the legal mind did not look at these matters from a surveyor's practical point of view. Take, for instance, the remarks about the timber-stage, at p. 223 of the Paper. He could not understand how a lawyer could consider that timber which was stored on a timber-stage could in any sense form part of a building: the permanent part of the structure was simply a few posts supporting a frame on which merchandise in the form of timber was placed; if it were held that this might be a dominant tenement, and might acquire light all round, great hardship would be involved on surrounding owners who could either never build near the timber-stage, or must protect their rights by surrounding it with lofty screens. If it were decided that every opening in a timber-stage left between the timber stored there was for ever after to acquire a right of light, why should not the same argument equally apply to barrels heaped up in a yard, or to coals, or any other description of merchandise?

The next point, as to which there was great difficulty, was the setting of windows forward or backward. With regard to the cases referred to at pages 235 and 242 of the Paper, in which this question was considered but not defined, he maintained that it could not be absolutely settled what principle should govern the right of light to windows set backwards or forwards until the angle of light to be allowed was first determined. It was certain that there must be *some* angle of light which windows have a right to enjoy. In the case of a street with houses opposite each other, the windows could not claim all the light in a horizontal direction at the back and front of it for ever, for it would permanently prevent the erection of any other building in front of them, and it was equally clear that it was not reasonable for a man to completely darken a window by erecting a huge tower before it—there must be a mean

between the two extremes, and he could not see why the much-abused line of 45 degrees should not be taken, as was done in almost all towns on the Continent, to regulate the width of the streets. Now, if a line of 45 degrees or any other line were decided on, it seemed to him that windows, if moved forwards or backwards, should be moved in that line in order to secure the same amount of light as was enjoyed before, that is, they should be raised if brought forward, and might be lowered if set back. Therefore until that angle was established it was impossible to determine a rule for moving windows backwards or forwards.

Then he would ask the author, as a practical man, what harm would result if an absolute law were made that windows had a right to light in front of them above an angle of 45 degrees drawn from their cills (he was speaking of direct light, not lateral), and that no obstruction should go beyond that line. He had applied that principle in rebuilding and altering four buildings in Wigmore Street, in one of which there were eight neighbouring proprietors, and in two other cases where he had to defend buildings against obstructions by adjoining owners, and in these cases, instead of going to law, he had consulted with the architects on the other side, and they had mutually agreed on the principle of the angle of 45 degrees with a result satisfactory to both parties. In one of these cases the street was about 30 ft. wide, and the architect had planned his buildings to go up to about double that height on the other side of the street. He (the speaker) was acting for the dominant owner, on whose behalf he demanded to see the plans of the buildings proposed to be erected opposite. They were shown to him, and on his expressing disapproval the suggested height was reduced, and finally it was conceded that rather than go to law the limiting line of 45 degrees should be adhered to, taken backwards from the top of the old buildings pulled down. In another case it was proposed to add a storey to

a stable facing his client's premises in more than one direction, and the architect on the other side having agreed to keep his building below an angle of 45 degrees drawn from the height of the old buildings, litigation was avoided. So that amongst practical men this principle could be adopted with satisfaction to both sides, and without the great expense of litigation and mutilation of buildings by having them altered or stopped after partial erection.

Then as to side light. It seemed to him that there should be no right to claim lateral light to windows in a building. Supposing a number of long narrow strips of ground, the centre plot of which was purchased and a small building erected in the middle of it, with windows in front and rear, and the right to light to those windows acquired. Then, if the plots on each side were purchased, was it to be said that it was just and fair that, because there was that little building in the middle, an owner on either side must confine his building to these small dimensions and could not go forward or backward at all without interfering with that light? Would not that be unjust? And would any hardship be inflicted if there were an understood principle that no claim for lateral light could exist? If there were a definition of the law on the general subject of light and air, it would, no doubt, reduce the amount of money spent on simple light-and-air cases very considerably, and thus benefit the public, although perhaps this might not be thought advantageous to lawyers and surveyors who dealt with those questions. But he was not quite sure about this; at present, owing to the enormous cost of litigation on the subject as shown in some of the cases named in this discussion, and the great uncertainty of the results, the public were afraid of the whole thing, and preferred to suffer injury rather than defend their rights.

If the law on the subject were more definite, cases would probably be more frequent if less expensive, and more satisfactory to the litigants.

His general conclusion was that there should be some more settled definition of the law which would make it clear to both dominant and servient owners what their rights and powers were.

Mr. W. Woodward (Professional Associate) said that the great value of a Paper like Mr. Gardiner's was that it kept before surveyors the important alterations that were made in what Professor Kerr termed "case law."

The first important point Mr. Gardiner had referred to was on page 222, as to the access of light:—"It therefore behoves "you, in negotiating sales of houses while the owner retains "the surrounding land, or of land while the owner retains a "house adjoining, to keep this state of the law in mind, and "guard against its operation to the detriment of your client; "and either an express power to build in any way on such "surrounding land should be reserved, or the right to light "should be expressly given by the grant." On one or two large estates in London—certainly on one—it was now the practice to insert in all the leases a clause to the following effect:—"The lessee shall not acquire or be entitled to any "right of air or light from or over or affecting any land "belonging to the same freeholder; but, on the contrary, "the freeholder claims the right to erect any new buildings "of any height, whether such buildings may or may not "affect or obstruct the passage of air or light to the demised "premises." Now, that, he thought, secured to the freeholder a right to erect a moderate building (for few freeholders would permit the erection of a building that would be detrimental to one of their own lessees), and at the same time it gave the lessee knowledge that he must not in the future bring an action for light against his opposite neighbour. In the case of *Harris* v. *De Pinna*, referred to in the Paper, where light penetrated through apertures and passages in timber, it seemed to him that the light which

was obstructed was of the utmost importance to the plaintiff. Whether or not the light was supplied through a sash-frame did not, he thought, interfere with that consideration.

The next case was where a building had been altered, or the position of the windows had been altered, and the apertures changed, and a caution was given by Mr. GARDINER on page 232 which he thought they would do well to have always before them. He said "but, until the point is set at "rest one way or the other by some future decision, you "must be careful that the windows of a new building should "contain the entire area of at least one of the old windows, "in order to preserve the right to the undisturbed access of "light to the windows of the new building."

Another point, which he thought was of importance, was referred to on page 226, where Mr. GARDINER explained that the right to light was established by nineteen years and one day's enjoyment.

With regard to lateral light, he went with Mr. PAYNE in thinking that a man was, of course, entitled to light in front of his windows, but to extend that right equally as regards lateral light, was, he thought, straining the point. With regard to this question of lateral light, Mr. CHATFEILD CLARKE said, on page 266, "that a very equitable mode "of dealing with many of these cases would be that "there should be liberty given, with some slight altera-"tion of plan, to give an equivalent of light without "the slightest damage to the property." That seemed to be a very fair way to meet the case, but difficulties arose to a great extent, as Mr. DOUGLAS MATHEWS had pointed out, from the architect's own fault. A building was often taken down and rebuilt without the architect taking the trouble to inquire into the rights of the neighbour opposite, and was carried up considerably higher than before. This was done with the full knowledge of the architect, who was perfectly aware that there was a right of claim for compensation.

If it were not for the law of light there would be a multiplication of hideous buildings such as were to be seen at Queen Anne's Gate, and though the law, perhaps, operated harshly in some cases, there was no municipal law to restrict the height of buildings in London, which the Act did, to some extent, regulate. He had always found it desirable, as Mr. Douglas Mathews had said, to act honestly in the case of building. It was well to inform the neighbour frankly what was intended, and he would then be less inclined to litigation than if he found out for himself, afterwards, that it was intended to go to a greater height than before. He also thought that architects, particularly in small cases, would do well to erect screens, to show the adjoining owner exactly what was proposed to be done.

With regard to the question of a new tribunal, he thought that both the learned gentlemen who had spoken, and also Professor Kerr, had to some extent missed the point which was referred to in the course of the last discussion—namely, that however learned a judge might be, he could not be expected, sitting in a Court of Justice, to decide a case which necessitated a view in order to appreciate fully the points that arose as to light and air, and to determine whether a building affected or did not affect the light of another. He thought there should be some kind of tribunal presided over by a man who had given the greater part of his life, perhaps, to the study of these questions and who had some knowledge of the law. Just decisions would then be far more frequently given in cases of light and air than was the case with the present tribunals.

Mr. T. Blashill (Fellow) said that he had given some attention to Mr. Gardiner's Paper, and particularly to the remarks on page 226, showing that 19 years and one day would have the practical effect of 20 years. He himself had not met with any decision on that point, but had

understood the period to be 20 years, and he was very much surprised to find that lawyers took a different view. It seemed to him only reasonable that this interruption, if it was to have any effect at all, should be contained within the 20 years, and should not be an incomplete interruption, added on at the end of 19 years and a day. In fact, he should not call that an interruption, but a termination. The case had been mentioned by Mr. GARDINER of rebuilding when new windows, perhaps of different character, were substituted for old windows. In a case in which he was engaged before the late Master of the Rolls, Sir GEORGE JESSEL, the building in question had been used as a plumber's shop until some 15 or 16 years previously. It was then entirely taken away, and a bank was built in its place. With regard to the question of size, of height and width, and in every other particular, the windows of the new building had no relation whatever, except by chance, to the windows that preceded them. He, being surveyor on behalf of the plaintiff, had made diagrams which showed in the usual way where the new and old windows coincided. He remembered that the Judge said:—"Yes, that is all very "well, but you have not proved that the parties in rebuilding, "have retained enough of their old windows to be practically "useful to them." That was the point—if in rebuilding the premises enough of the old windows had not been retained to make the portion retained useful for the purposes of a bank, then the defendant had done no mischief, because to prove that he had done any it must be considered what mischief he had done to the ancient portion of the new windows. The Judge, therefore, said that he would go no further with the case unless he (Mr. BLASHILL) put up screens occupying the position of the old building, and could cut out the position of the old windows, and then, if evidence could be brought that the light coming through the coincident portion of the old and new apertures was enough for the purposes of the

bank, he would go on with the question whether the plaintiff's building opposite was doing mischief. Ultimately, however, the parties came to terms, so that no decision was given on the point.

But the principle appeared to him to be right, for if an owner destroyed so much of his old light that the portion remaining was no longer of use to him, he had no right to claim for the new lights he had gained. He confessed that, in his mind, he could not treat in the same manner as a freehold a right which was capable of being acquired by his neighbour simply erecting a building with windows, twenty years, or more, since. A right acquired in that way was not, in his view of the case, of the same sacred nature as a freehold. He was very strongly of opinion that it was advisable to keep well in the hands of men learned and trained in the law in considering these matters, but that there should also be a far more satisfactory way than existed at present of utilising the experience of trained scientific witnesses, such as surveyors, who were now apt, from the very nature of their position in these cases, to lean unconsciously to the side for which they were concerned, instead of occupying a perfectly independent position as scientific and trained experts.

Mr. P. D. Tuckett (Fellow) said that it appeared to him that the discussion up to the present—he did not include that evening—had very much taken the form of a complaint on the part of the architectural branch of the profession of the disappointment and trouble with which they met in consequence of the rights so much insisted upon by adjoining owners. That was a subject well worthy of all their sympathy. That there were grasping adjoining owners he had not the least doubt; but it had been his fate to be engaged in a number of these light-and-air cases, and to be the means of settling a still larger number. The

impression on his mind was that unreasonableness was by no means all upon one side, and the disfigurement of those works of art to which Mr. Chatfeild Clarke had alluded was very often the result of the architect and the building-owner attempting too much, there being often plenty of room to construct, as our ancestors used to do, quite as beautiful buildings of less height.

He had been struck by the boldness of the suggestion of compulsorily purchasing those easements on the ground of "public advantage." In the central part of the Metropolis, where the question of light acquired its principal prominence and value, the tendency to pile up great masses of buildings, and produce a plethora of dark and bad offices at a great height, was not at all, it seemed to him, conducive to the public interest.

As regarded the idea of a new tribunal, there was no doubt whatever that anything which would tend to the more ready determination of abstruse details in these cases would be acceptable. The chief complaint, as he understood it, was that the Judges objected to personally viewing property; but it seemed to him that it might be possible for the Judge, when he was unwilling to view the property himself, to appoint some qualified expert to view for him and to make his report on the facts, which could be the subject of argument in court afterwards. It had happened to him, in at least two rather complicated cases, to be appointed by the Judge, without agreement by the parties, to make reports on important questions of value, which, after being produced in court (but without any other evidence), had been made the foundation of judicial decisions. This showed that the Judges had power to take such a course.

Mr. A. Garrard (Fellow) said with reference to the angle of 45 degrees, which surveyors were so apt to adopt, he observed that the case of the *Ecclesiastical Commissioners*

v. *Kino* had been referred to. It was the case of the removal of St. Dionis Back Church, Fenchurch Street, the site of which was to be sold by the Ecclesiastical Commissioners and was worth between £40,000 and £50,000. South of the church, and between it and Fenchurch Street, there was a yard 16 feet wide. Some one-storey wooden buildings with felt roofs had been erected very many years before on the south of this churchyard and abutting upon Fenchurch Street.

The old buildings being low, the church could well be seen from the street.

The Corporation widened Fenchurch Street at this point, leaving these buildings of an average depth of 8 feet for a width of 40 feet in front of the church-gate. They sold this strip to Mr. Kino, on which he proceeded to erect substantial buildings, 30 feet in height, which would have entirely shut out the view of any buildings erected in the church-gate from Fenchurch Street, and, to a great extent, destroyed its value.

The case was fought on its merits, and it was decided that Kino was not entitled to erect more than one-storey buildings, as before, although his proposed buildings would have been below an angle of 45 degrees from the bottom of the old church windows, which were a considerable height from the ground.

Mr. Dundas Gardiner said that before replying to the remarks which had been made on his Paper, he desired to thank the Members for the very kind and complimentary manner in which they had received it, and to assure them that it had given him great pleasure to devote a small portion of his time to its preparation.

The three questions which seemed to him to have been most prominent in the discussion were—the tribunal for determining questions of light and air, the effect of lateral obstruction, and this angle of 45 degrees.

Now, it seemed to him that the Members present had not thoroughly grasped the real principle of these light-and-air cases. Every man, as he had said in his Paper, had a right to do what he liked with his own land, and no action would lie for damage, and no claim for injunction, unless the person who claimed the damage or the injunction could show that the building of his opponent caused him substantial injury—that is to say, an injury which rendered the dominant tenement either less convenient for habitation or, in the present state of the law, for any other purpose to which it might be applied. That had only come about within the last few years, for, formerly, it was thought when an obstruction was made that, so long as there was sufficient light left for the trade or occupation which was at the time carried on, no injury had been inflicted; but now it was held that the obstruction must be one which would render the dominant tenement less convenient for the purpose of any occupation or trade that might be carried on in it. Therefore it was evident that the question of light and air resolved itself into a simple matter of fact, and as in any other case —a running-down accident, for instance—the question was, "Whose fault is it?"

The issue always to be tried in these cases was, "Does "what the other party is doing interfere reasonably with the "convenient habitation of the house?" or, "Does it render "the house less convenient for the purpose of any trade "carried on?" That disposed of the question of lateral light at once, for there was no greater right for anybody to interfere with light at the side than in front. The question was one of evidence. They must all know, as practical men, that a building at the side of a window did not produce the same obstruction to light as a building of the same character in front of it; but if lateral obstruction did render a room or a house less convenient for habitation, and deprived the occupier of light formerly enjoyed for several hours in the day, as in the case of *Clark* v. *Clark*, or if it prevented a

watchmaker carrying on his trade as he had done before, then a lateral obstruction must be dealt with exactly in the same way as an obstruction in front.

The case of *Leech* v. *Schweder* had been referred to by Mr. Chatfeild Clark. That was a case of lateral obstruction. The buildings sought to be restrained had been run up at the side; but no distinction was made in that case, or in any case that he knew of, on account of lateral obstruction. The only point was that it rendered a strong body of evidence necessary to show that the obstruction did render the dominant tenement less convenient for the purposes of trade or habitation, as the case might be.

Then, as to the angle of 45 degrees, there was no rule of any sort. As Professor Kerr had said, the presumption arose with the Metropolitan Building Act, which required that the height of the building should not be greater than the width of the street, and one speaker had asked him to give a reason why this angle was not absolutely adopted. He thought he saw a very good reason, after what had been said as to the nature of the evidence required. Take, for instance, a street 50 feet wide, with houses on each side, of 50 feet. No doubt the houses on either side might be raised 10 or 15 feet without producing any perceptible injury to the light on the other side, but if the angle of 45 degrees were adopted they must not be raised a single stone.

As to the tribunal to try those cases, that seemed to be governed by the point that was to be determined, and the point was merely a matter of fact: "Does the building "interfere with my comfort or prevent me carrying on my "trade?" and for determining that point it was not necessary, as Lord Cranmouth remarked in *Clark* v. *Clark*, to have scientific evidence. He said in that case, which was reported in 1 Chancery Appeal Cases, p. 20:—"I pay little "regard to what is called scientific evidence. I take it for

" granted that these instances describe accurately the " quantum of obstruction which the buildings interpose. The " real question is not what is, scientifically estimated, the " amount of light intercepted, but whether the light is so " obstructed as to cause material inconvenience to the " occupiers of the house in the ordinary occupations of life."

For the purpose of determining an issue of fact like that, he knew of no better tribunal than an English Court as at present constituted. It had been said by Professor KERR that the counsel on the one side endeavoured to keep back facts; but the counsel on the other side took care that those facts were brought out if they had a beneficial bearing on his case, and by means of examination and cross-examination both the veracity and the unintentional exaggeration of every witness was tested and the value of his evidenee shown. What was really wanted, he thought, was correct evidence of the state of the dominant tenement before the building-owner commenced operations. If the architect took the trouble to go into the opposite house, and to make some notes as to the state of light then existing, and also, as Mr. WOODWARD observed, to put up screens to test it, then there would be a body of evidence which the Court could act upon at once, and by means of which it could then ascertain, with great nicety, whether the proposed building substantially interfered with the enjoyment of the dominant tenement.

There was one point which, it seemed to him, Professor KERR's diagrams would not fit. Take the case of a window some 10 feet or 12 feet from a very high wall of 60 feet or 70 feet—in a yard, in fact—there would be, he should say, very little sky, if any, seen from the middle of that window. Now put a wall 12 feet high halfway between. The diagrams did not, as it seemed to him, show any obscuration by that wall, which was placed a few feet nearer to the window, but he thought that the wall put in between must

obscure the light; but, in his view, it was not necessary for a room that was fairly lighted to see the sky at all.

As to the last question, viz., alterations, it would be seen, on reference to page 242 of the "Transactions," that he quoted some observations of Lord Justice Cotton which, he thought, met the case. He had said:—"In my opinion the question to be considered is this, "whether the alteration is of such a nature as to preclude "the plaintiff from alleging that he is using through the "new apertures in the new wall the same cone of light, or a "substantial part of that cone of light, which went to the "old building. If that is established, although the right "must be claimed in respect of a building, it may be "claimed in respect of any building which is substantially "enjoying a part or the whole of the light which went "through the old aperture." Consequently, in altering windows, there must pass through the new apertures a very considerable cone of the light that came through the old, in order to support a claim for its retention.

The Chairman said that some years ago they had an able discussion on this matter. Since then there had been various decisions by the Judges, which had made the question of light and air somewhat perplexed.

He considered the Institution greatly indebted to Mr. Dundas Gardiner for bringing this subject forward again. He (the Chairman) thought that Professor Kerr's remarks were very much to the purpose. There were points of law involved in these matters which he thought were best determined by the Judges; but the Judges should call in experts (surveyors or architects) as assessors, for the same reason that surveyors, when referees, when legal questions were at issue, were permitted to have the advice of a legal assessor to advise on the law.

The Meeting then adjourned.

Paper 153.)
No. 260.)

THE LAND TRANSFER BILL, 1888.

By J. W. WILLIS BUND (Associate).

Read at the Ordinary General Meeting of The Surveyors' Institution, *Monday, April 30th*, 1888.

WILLIAM JAMES BEADEL, M.P. (PRESIDENT), IN THE CHAIR.

When, in 1882, the Conveyancing Act of 1881 came into operation, a celebrated conveyancer at Lincoln's Inn, in the introduction to his book on that Act, called attention to the change, amounting almost to revolution, which that statute had made in the conveyancer's business. In reviewing his book the *Times* spoke of the work as the product of "the dying swan of conveyancing." The conveyancer has survived to see the present Bill. What his feelings must be on reading it is difficult to imagine, for should it become law the age of conveyancing will belong to the past as much as the age of chivalry. The memorandum to the present Bill states that it re-enacts the Land Transfer Act of 1875, with the amendments, embodied in the Land Transfer Bill of last year. It is, however, stated that the Land Transfer Act is "recast, both in form and substance, to a much greater extent "than is usual in measures of consolidation." This is certainly true, for the Bill not only recasts, but introduces some very sweeping changes.

It makes the registration of all transfers of land compulsory. It makes the date of entry on the register, not the date of the instrument, the test of priority. It makes the

fact of a person with an incomplete or qualified title having been on the register for five years give a right to have the possessory title confirmed into an absolute title to the land. It does away with the distinction between the law as to the descent of realty and personalty. It abolishes estates tail and reduces freehold estates in land practically to two, limited and in fee.

In considering the Bill it will be convenient to treat the two parts separately, the one relating to the transfer of land, and the one to alterations in the existing law. If anyone should ask what is the guiding principle of the Bill the answer is obvious: to get as large a number of fees as possible for the Exchequer. This idea prevades the whole measure, and is found both in the part relating to transfer and in that relating to the amendment of the law. In considering the effect of the Bill the fact of the imposition of fees and stamps must always be borne in mind.

A register of owners of freehold land is to be established throughout England and Wales, and for this purpose the country is to be divided into districts. An Order in Council may be made, specifying a date after which in any district the registration of the transfer of land is to be compulsory. If the Bill had proposed to limit the registration to all dealings with land after the prescribed date it would have been intelligible, but it goes much further, and provides that after the prescribed date "a person capable of being registered "as owner of any land shall not, unless he has been re- "gistered as owner, be capable, by any conveyance on sale, "mortgage, or settlement executed after the specified day, of "conveying or creating any freehold estate in possession in "the land, or of conferring any equitable right in respect "thereof"—that is to say, all owners of land, before they can deal with it in any way, must be registered. It is easy to understand that on every sale the purchaser should be regis-

tered, but to compel the owner to be registered before he sells can only be for the purpose of making costs, and is certainly unworthy of a great measure such as this purports to be. It will work great hardship in many cases; for instance, a mortgagee with an insufficient security, by no means an uncommon case at the present day, who is desirous of realising all he can by sale of the mortgaged estate, before he can sell will have to pay the costs of registration. It may be said he will be able to add the costs to his debt, but as his security is insufficient to pay the debt any increase of the debt is only taking money out of the mortgagee's pocket.

The clause will also do away with a very large number of transactions in equitable mortgages. Probably a deposit of deeds is the most usual form of giving security. Unless the owner is registered a deposit of deeds is valueless, as he cannot confer any equitable right. It is also doubtful if the owner of land who has made his will devising the land before the Act comes into operation, if he die after the prescribed date, can confer any right to the land, as the clause makes him incapable of conveying or creating any freehold estate or equitable interest by settlement, and by Clause 103 "settlement" is to have the same meaning as in the Settled Land Acts, and by the second section of the Settled Land Act, 1882, settlement includes a will. Surely such a result cannot possibly be intended, and it may well be asked is it fair to throw upon landowners the burden of paying the fees for registration on other occasions than when the land is actually dealt with.

The clause goes on to deal with the case of a purchase from a person who was not capable of being registered and the case of a person taking under a will or on an intestacy, and provides that such person shall have no right over the lands until they are registered. On registration, the title dates back to the time when it would have commenced.

If this section becomes law, the effect will be that only the person on the register can deal with land—that is, no one, unless he pay certain fees to the Government, can deal with land. The great complaint has been that the transfer of land is already too costly, but the proposal is to make it still more so. Like most modern Acts, the details of the system it introduces are not contained in the Bill, but are to be framed hereafter by rules made under the Act. Section 4 provides that an application for final registration as owner is to be made in such manner, subject to such notice, and be supported by such examination or evidence of the title as may be prescribed. Beyond the fact that it will cost him money, the owner of land is left quite in the dark as to what he will have to do before he can deal with his land, and he will find himself made subject to a set of rules which he will have no opportunity of discussing or considering, and which will for the future regulate his dealings with his own property. The experience that we have had of rules does not make the prospect by any means a pleasant one for landowners. But, whatever may be the result, this is clear, that the Bill, for the present at least, places new and formidable difficulties in the way of dealing with land. If, for instance, the owner cannot show such a title as comes up to the requirements, whatever they may be, for registration, although he may have a perfectly good title for all practical purposes, and unless he is prepared to be registered with a possessory title, he could not register and could not deal with his land.

Persons may be registered as full owners—that is, if entitled in fee, or as limited owners if tenant for life, and either with an absolute, qualified, or possessory title. An absolute title is one to which no qualifications are inserted upon the register; a qualified is one when certain rights are reserved, as described on the register; a possessory title is when

the person has a *primâ facie* title to the land, and is in possession, but that does not affect the right of any adverse claimant. On being entered on the register a certificate is to be given to the owner, which will be his title to the land. On any transfer of the land the transferee becomes entitled to be entered on the register, but, until entered, the deed of transfer is only to be regarded as a contract, but on registration it becomes a conveyance. On the death of a registered owner the legal personal representatives are the only persons entitled to apply respecting registered land.

Charges are to be registered, and, until registered, operate only as a contract to charge. The registered owner alone can create charges, and an unregistered charge will not affect a registered transfer or a registered charge subsequent in date. No title adverse to the registered owner can be acquired by possession. A register of leaseholders and a subsidiary register are to be kept.

It will thus be seen that, for the future, registration is everything. The registered owner is the person who can alone deal with or give a valid title to land, and all dealings with anyone other than the registered owner, and by a registered document, will be of no use in enforcing a title or claim to land.

So much has been said about the importance of land registry that it is too late now to say anything as to the principle or expediency of this general registration, but it may well be doubted if the provisions of the present Bill will not place a check upon the dealing in land. The cost at first will certainly be increased, and an increase of cost means a decrease in dealing. Cheap transfer of land seems to be as far if not farther off than ever.

When a person is on the register, unless he is on with an absolute title, his troubles have only begun. A purchaser

would almost assuredly require any vendor who had only a possessory or qualified title to make the title absolute before purchasing the land. The procedure for this is complicated and expensive. On being registered the owner may apply to have his title changed into an absolute one. On his application he is to deposit such sum as the registering authority may require for costs. The authority are to publish and serve notice of the application on any person who in their opinion ought to receive a notice. The notice is to be published in the month of November for five years. Any person may apply by petition to show cause against the title being confirmed, and such person may not only apply on his own behalf, but also on behalf of persons absent from the United Kingdom, unborn, or not known whether they are alive or dead, or of some one claiming under a succession of such persons. The registering authority can then, if the registered owner makes a final application, register him with an absolute or qualified title. If the title is confirmed, and any person is deprived of any right, interest, or money, the registered owner is to be liable to pay such person compensation. An incumbrancer can always apply to have his title to an incumbrance confirmed, and add the cost of doing so to his debt.

This is a fair specimen of the way the Bill deals with landowners. Lord St. Leonards used to say that he had never seen a title (and few men had seen more) in which he could not find some flaw. The registering authority may not be so astute as Lord St. Leonards, but in the majority of titles they will be able to find something that to some extent qualifies a perfect title, and the unfortunate owner will then be put to the cost of defending himself against all comers, finding the registering authority with money to invite persons to pick holes in his title; and, after all, it may well turn out that the registering authority do not see

fit to grant him an absolute title, and the money will be wasted.

One fertile source of dispute is not to be touched by the register. The 36th section prescribes that the description on the register shall not be conclusive as to boundaries or quantities. If the registered owner is desirous of having the boundaries dealt with, he has to go through a process similar to that of converting a qualified into an absolute title—that is, he is to invite all his neighbours to litigate with him—and the chances are that he will, after the litigation, only get a qualified entry as to the boundaries of his land.

The 40th section provides that, in any case of unregistered land, a person claiming an interest in it can lodge a caution with the registering authority, which will entitle him to notice of any application to register; and the owner is not to be registered until he has served the person lodging the caution with notice. A caution may also be lodged in respect of registered land, and the person lodging it is to be entitled to notice before the land is dealt with.

If anyone is aggrieved by any entry or omission from the register, he can apply to the Court for an order to rectify the register, and such rectification as the Court may direct will be made.

The 62nd section carries out the principle of sweeping into the Exchequer everything that can be brought in, to its fullest extent, by making it the duty of the registering authority, before registering any disposition of registered land, to see that all stamp-duties have been paid. This clause is evidently aimed at what is a not unusual custom of some banks—namely, never to stamp their mortgages. The number of cases in which it becomes necessary to produce a security in a court of justice is but a very small percentage of the total number, and it often happens that, to save expense, the securities are not stamped. This is to be done

away with for the future, and we, in fact, go back to the old rule, that an unstamped or insufficiently-stamped deed relating to land is void, for if not stamped it cannot be registered, if not registered it confers no estate. As to succession-duty, the Commissioners, if they think any registered land is liable to duty, can have an entry made on the register to that effect. All registered owners are to give an address within the United Kingdom, and service of any notice upon them there is to be good service.

Such are the main provisions of the Bill as to registration. Briefly they come to this. All land is to be registered, if not registered it cannot be dealt with. All dealings in land, to have any validity, must be registered; the present registered deeds have priority over former unregistered deeds. The registered owner of the land, subject to the qualifications on the register, and to those alone, is the owner of the land, and can deal with and give a good title to it. The only rights recognised are those on the register. While in theory this may be very well, in practice it is doubtful how it will work. It used to be said of Lord Westbury's Land Registry Act that those who had a good title did not care to register, those who had a bad title the registrar would not register; and something of the sort will be the case now. The number of landowners whose title is absolute—that is, whose title is theoretically perfect—is very few, while a qualified title will always render its owner liable to all sorts of requisitions, costs, and proceedings when dealing with the land. A purchaser will now take what is known as a good holding title—that is, one theoretically imperfect but practically safe,—knowing full well that if he wants to deal with it he can always guard himself by a condition from awkward requisitions. For the future all the blots on his title will be exposed to the world, and the cost and difficulty of getting rid of them will be very considerable.

The great idea has been to attract capital to land, but it is very doubtful if the Bill will not repel it, for a purchaser who buys land as an investment will think twice before he buys a bad title, or if he buys he will only buy—if he can get a bargain—at less than it is worth; while mortgagees and trustees will hesitate long before they lend money on a qualified title, the blots on which are patent to the world. It is more than likely that one effect of the Bill will be to depreciate the value of land still further by deterring purchasers and rendering dealings in it more expensive; while, as has already been pointed out, the cost of first registration will for the first few years be a serious matter for mortgagees, trustees, and impoverished owners, and the effect will probably be to stop dealings in land for some time to come, even if it does not lead to still greater difficulties in inducing mortgagees to call in their mortgages at once, to avoid any of the questions that may arise.

The practical abolition of equitable mortgage will also be seriously felt. It is only those who have had experience either in country banking or in a country solicitor's office who have any idea of the extent to which the system is carried. Their abolition will entail greater difficulties on landowners getting money for temporary matters, and will inflict extra costs on them without bringing about any corresponding advantage.

Every landowner and every land-agent are aware that on every estate in the country there are questions as to rights and liabilities that may at any time lead to litigation, questions as to rights of way, of boundaries, of commons, and numberless others. The principle of letting sleeping dogs lie is one that is extensively acted upon, and strict rights are not usually insisted upon; but if a landowner applies to register his estate, his neighbour in many cases will be obliged to oppose or to give up his rights, and the effect of

the Bill will be to bring into notice numbers of matters that but for it would never have been heard of. Barratry—the stirring up of strife among neighbours—used to be a legal offence, but the great result of the Bill will be to create a statutable Barratry. On the grounds, therefore, that the Bill will throw impediments in the way of dealing with land; that it will impose new burdens on the already overburdened landowners; that it will stir up questions and strifes that could well be allowed to remain at rest, it will not, I think, commend itself to a practical body like the present. I do not hesitate to say that if the Council of this Institution had been consulted and asked to prepare a scheme for the registration of title, they could have framed one that would have had all the good and few of the bad points of the present one, for its author seemed to be wholly unaware of the questions arising in the practical dealings with English land which it is the object of a registration of title to do away with. What is wanted is to simplify and cheapen the transfer of land; to attract capital to land; to do away with useless rights that impede dealing with land. None of these points are carried out by the Bill. If it passes we may get rid of King Log, but only in exchange for King Stork.

The changes in the law are changes in favour of fees; real estate is no longer to go directly to the heir or devisee, but to the legal personal representative; therefore, before any title to land can be complete a legal personal representative must be constituted—that is, fees must be paid to the Treasury. Much may be said both as to the convenience and inconvenience of this change, but surely so great a change in all our ideas as is contained in the 72nd clause, that real estate will on the death of the owner intestate no longer go to the eldest son, but to all the children equally as personal estate now does, is important enough to form a leading portion of a separate Bill, and not to be tacked on to the end

of a Land Transfer Bill. Until it has passed, most people will not know that a Conservative Chancellor has smuggled this most radical proposal through the House of Lords. The abolition of estates tail is another provision of the Bill. Its effect will most likely be very small, as the power a tenant in tail has of acquiring the fee renders such estate now of but little importance except for purposes of platform oratory. Indeed, Lord Cairns' changes in the land-laws have made the whole question of limited owners one of far less practical importance than formerly; and so far as the rights of sale and the powers of charging are concerned it does not much matter whether a man has an estate for life or in fee.

The most important part of the subject, so far as its working is concerned, will be the rules that will be made under the Act. All depends on these whether it will have even a limited success. It is clear that the Bill is far from a complete or satisfactory measure; and if it passes this year it will have to be amended and explained next year.

In the words of the Chancellor of the late Government, "We may be agreed on the general question of registration "of title, but it is another matter to insist on registration "both in transaction *inter vivos* and on succession. * * * * "There are several important questions which will have to "be considered—whether the owner will have to register "before transfer to a purchaser, whether registration is to "be compulsory on every succession or only when a transfer "take place, and whether a distinction should be drawn "between a possessory or qualified and an absolute title." A measure dealing with all these delicate and difficult questions should, as far as possible, set out the procedure by which they are to be carried out. This the Bill does not do; it is a mere skeleton on which to place the rules, and looking at its skeleton clauses one is tempted to ask, "Can these dry bones live?"

Mr. D. Watney (Fellow), in proposing a vote of thanks to Mr. Willis Bund for his Paper, said that it seemed to him, as a layman, a very clear and lucid exposition of the Bill. It had been his lot, as a surveyor, to take a surveyor's part in many registrations, some of large estates and some of small. The process was very tedious, as most surveyors knew; the notices to be given were numerous and the time taken very great, to say nothing of the expense, which was also very considerable. But the process had this merit—where it had been gone through it created an absolute title, the boundaries were all complete, and, as a matter of fact, when the plan had been registered the plan became the title, which he, as a surveyor, thought the very best of titles. Speaking as a layman, he entirely agreed with Mr. Bund that registration should be deferred until a man wanted to deal with his estate. There were many estates with which the owner had not the slightest intention of dealing. Having inherited them from his father, and meaning to leave them to his son, he was quite satisfied with the existing title. Why should such an owner be put to the very considerable expense of registering a title which might lead to all sorts of evils, and with which he was perfectly content as it stood? It seemed to him that Mr. Bund had given the pith of the whole matter in saying, "When an owner "wants to deal with land, then let him register his title." Registration under those circumstances might well be made compulsory; but it seemed unreasonable that this should be done unless an owner needed to register his title for some special purpose. Three lines of Mr. Bund's Paper summed up the reasons in favour of a Bill of this sort. He had said:—"What is wanted is to simplify and cheapen the "transfer of land, to attract capital to land, and to do away "with useless rights that impede dealing with land." On that point he thought everybody would agree with Mr.

Bund, but he could not see that this Bill would carry out any of these requirements. Speaking professionally, he should have been only too thankful if some means could be found for attracting capital to land, but this end would not, he thought, be accomplished by the Bill under discussion.

Mr. J. E. Bankes (Associate) had very great pleasure in seconding the vote of thanks to Mr. Bund for his Paper and for the way in which he had elucidated the principles of this measure. It was important that proposals of this kind should, before becoming law, be discussed by practical men, and not by theorists only. There were two obvious principles underlying the Bill, first, the principle of registration; and, secondly, the principle of assimilating real and personal property. The majority of the other clauses of the Bill were devoted to working out details. On the first point—namely, registration—he thought that the Members would probably all agree that, in the abstract, registration was extremely desirable if it was practicable, and that it would be exceedingly convenient if land in this country could be as easily transferred as in the colonies, where vast tracts of land might be disposed of by simply walking up to the registry office and having a transfer registered.

As Mr. Bund had said, the principle of registration had practically been accepted in this country in the existing Registration Act, although that Act was almost a dead letter because voluntary; for, as had been said, neither the people who have a good title nor those who have a bad one care to register. The main question before the Legislature was the desirability of making this principle compulsory. He did not wish to go into the political details of the question, but he did not suppose anyone in his senses would suggest registration as an advantage to the majority of the present

landowners in England, because the vast majority of them had no intention of disposing of their lands. But the underlying principle of the Bill was this, that it is to the advantage of the community that as large a number of people as possible should be owners of land, and therefore registration was introduced with the view of making the transfer of land in the future easy, and so attracting a larger number of owners than there are at present. He himself thought that it would be a very great advantage if a larger number of persons owned land than at the present moment, and that any provisions which tended towards that result would be a step in the right direction. The details had yet to be worked out, but in principle he was in favour of the compulsory registration of land. The question was—How could this be effected? In one of three ways. Either by making it absolutely compulsory, as proposed under this Bill; or compulsory upon any transfer, including therein mortgages, settlements or wills; or by making it compulsory only in the case of a sale. The latter was the principle advocated by Mr. Bund and by Mr. Watney—that it should be only when a man wants to deal with his land and sell to a stranger that registration should be compulsory. That was a very short step beyond the present position, for the number of sales of land in England was comparatively small. Therefore the working of the principle would be so extremely slow that it would be of very little substantial advantage. The second of the above modes in which the solution of the difficulty could be worked out seemed to him to be open to the same objections as those urged by Mr. Bund. If it were hard that a man should have to register where he did not intend to sell, it was equally hard that he should have to do so if he makes a will and leaves the land among his own family, or where property is resettled in tail, as was frequently done at the time of the marriage of the eldest son. There were then these three

modes in which it might be rendered compulsory. He took it that the advantage of the third would be so small that it was practically a very short step forward; and the second seemed to work an almost equal injustice to the course now proposed. To his mind, the principle of the Bill was a good one, provided it were worked out without injustice to the present landowner.

He could not agree with the reader of the Paper that the object of the Bill was to bring fees to the Exchequer. Until the charges to be made were known, one could not tell exactly whether that would be the result of the Bill. If that were the result, and if it was intended to make the cost of registration extremely heavy, he should be opposed to it as an unmitigated evil, and as placing a further incumbrance upon land which is hardly able to bear the heavy charges already upon it. But if the principle were a good one and introduced for the benefit and prosperity of the community at large, it seemed to him only fair that the cost of any primary compulsory registration should to a large extent be borne either at once by the taxpayer directly, or by a loan from Government, which should be repaid by a small charge on future transfers. If some principle such as this could be introduced in the Rules, it appeared to him that one of the many objections to the present Bill would be removed. But on this point the public were left entirely in the dark until the Rules came out.

By Section 4 it was provided that "an application "for first registration as an owner of land may be made by "such persons, and shall be made in such manner and "subject to such notice, and be supported by such examina- "tion or evidence of the title to the land as may be "prescribed." Under that section there seemed nothing to prevent the Government providing that some Government official should apply for the registration of any particular

landowner's land. Whether that were intended or whether it was loose drafting, he did not know. The Bill at present gave no information as to how it was intended to carry out the first registration. If it were intended that the whole burden should be thrown upon the existing landowners, it seemed an immense injustice, and could in no way be said to be for their present benefit.

To pass to the second point—namely, the assimilation of real and personal property. A great deal had been said and written in the papers, as a political cry, that estates tail should be abolished, and that upon the death of the owner of real estate it was unreasonable that his land should descend to his eldest son. As a matter of fact it was clear that no alteration of the law of intestacy with regard to real estate would have much practical effect. It was very rare that any considerable quantity of land passed under an intestacy, and that point was, therefore, of little value; but it was rather curious that a provision of such importance, working such an alteration in the law of the country, should be tacked on at the end of a Registration Bill. He did not think the abolition of estates tail was a great innovation. Recent legislation had practically worked many changes, and the value of estates tail was considerably lessened. He thought, therefore, that, to sum up the whole matter, compulsory registration was the vital principle of the Bill.

With regard to details there was one point which he thought Mr. Bund had not mentioned there—namely, the provision of an insurance fund, which seemed to him to be highly important and to work fairly. Section 50 provided that "there "shall be established, in accordance with the scheme in the "schedule to this Act, an insurance fund to be raised out of "insurance fees payable on registered transactions relating "to land, and there shall be paid out of the fund, in accord-

" ance with the provisions of the scheme, compensation for " any loss suffered by any person as owner, incumbrancer, or " otherwise, in respect of registered land, where the loss " arises from an entry in the register obtained by forgery or " fraud, or from any error on the part of the registering " authority or their officers, or from any of the other matters " in the scheme mentioned." That appeared to be an extremely wise and valuable provision, if it were carried out. It would be an immense hardship if the landowner were forced to register, and then through some fault of the office find that he had a bad title, and therefore this insurance fund seemed to be a valuable provision if it could be established without creating an intolerable burden upon the land in the first instance.

Again, with regard to equitable mortgages. Everyone knew the immense advantage of an equitable mortgage in getting small loans without expense. The Bill certainly would render that method of raising money impossible. But it must be borne in mind that when registration was completed it ought to be both simple and inexpensive to raise money on land, for under Section 14 it was provided that " a registered owner of land may charge the land with " the payment of money, either with or without interest, and " either by way of annuity or otherwise, and the owner of " the charge shall be registered as such." Therefore any person could create any charge he liked, and the person in whose favour it was created would be registered, subject to the provision in the second subsection that " there shall be " executed on the creation of a charge such instrument of " charge as may be prescribed, but until the owner of the " charge is registered as such, that instrument shall operate " only as a contract, and not as a mortgage."

Now, of course, the advantage of an equitable mortgage

was that no document was necessary, and no costs were incurred, and if the "instrument of charge" referred to were a simple instrument of three or four lines, and not loaded with an enormous stamp-duty, the transaction would be effected at a very small cost.

There were two other points—one, as to boundaries, and on this point he was sorry he could not agree with Mr. Bund, because it appeared to him that, if the register was conclusive as to boundaries, registration would practically involve a lawsuit, and a lawsuit to be decided not only by documentary evidence, but in many cases by oral evidence and by the calling of witnesses at great length. He thought the idea of the Bill was that in most cases the registering authority should be able to decide upon the title without viewing the property or calling witnesses. Documents would be sent to the office, and the officials would be enabled to decide the question of title, and the title shown by the documents would be registered, but if once the definition of boundaries were attempted, it seemed to him to be equivalent to inviting a lawsuit in every case of registration. Therefore it appeared to him that the question of boundaries was one of such practical difficulty that the draughtsman was wise in omitting it.

It had been said by Mr. Bund that it was an injustice that a man who had already made a will dealing with his property should be called upon to make a fresh will and register; but by Section 3, Subsection 1, it was provided that, "where an Order in Council has been made, declaring that "on and after a specified day the registration of the transfer "of land in any land-transfer district is to be compulsory, "the following provisions shall apply to freehold land in "the district." * * * * "A person capable of being "registered as owner of any such land shall not, until he

" has been registered as owner of the land, be capable by " any conveyance on sale, mortgage, or settlement executed " after the specified day, or of conveying or creating any " equitable right in respect thereof." Therefore he thought it clear that compulsory registration was only applicable to sales, wills, mortgages, or settlements executed after the specified day. From Section 2 it appeared to be the idea of the framers of the Bill to deal with the large amount of work necessitated, on the principle of the Ordnance Survey, by dividing the country into districts by Order in Council, and providing that " on and after the day specified in the " Order the registration of the transfer of land in the " district is to be compulsory." He supposed commissioners would go down to a certain district and register all titles in those districts, and then move on to the next district, and so on until the registration was complete. So much depended upon the rules to be made that it was almost impossible to pass a final judgment upon the Bill, but it appeared to him that the principle, if worked out so as not to create an injustice to present landowners, was a good one.

Mr. G. M. Freeman (Associate) said that he had read this Bill with a great deal of interest and with still more astonishment. Mr. Bankes had called attention to the fact that a great alteration of the law had been tacked on to the end of the Bill. If the Legislature tried to meddle with the law of primogeniture, the attempt would probably prove an absolute failure, as was the case in France, where the law was practically defeated by all the younger sons agreeing to make the elder son their agent. In any case its effects could only be very slight indeed, for he believed that every estate of any importance was settled, and if it were not, the owner was always careful to make his will;

and the only probable effect of this portion of the Bill would be to stimulate people to so doing.

Taking the Bill as a whole, one was tempted, first of all, to ask what was the origin of a measure of the kind introduced by a Conservative Lord Chancellor which, if carried, would work in the existing law a revolution of a most extraordinary nature. Now looking back over the recent publications on this subject, the origin of this Bill would, he thought, be found in a little book by Mr. Arthur Arnold, entitled "Free Land"—one of the most democratic books ever published. It was surprising to find a Conservative Lord Chancellor adopting the opinions of an author who, so far as he knew, never owned an acre of land and never drew a conveyance. But even Mr. Arthur Arnold had never proposed that registration should be made compulsory as regards existing owners. This Bill, however, went a great deal further by enacting that everyone would have to register before he could enjoy the rights which he possessed before the Bill was introduced. There was a well-known passage in Mr. Arthur Arnold's book in which the writer drew a picture of the owner of a plot of land in Australia, going about with his registered title in his breeches-pocket, and able to sell it as he would sell a small article of merchandise. But Mr. Arnold had forgotten that in Australia and in all other new countries, something had taken place which had not taken place here. Government had taken the first necessary step towards any such scheme as this by delimitating all the land, and that, he contended, was the duty of our own or any other Government before introducing any such scheme. Every estate was distinctly mapped out; a man could tell the exact extent of his property and could deal with it without having everybody north, south, east, and west disputing his boundaries. That

very lucrative practice was not possible in Australia, therefore he ventured to differ from the last speaker that the boundary principle was not one which ought to be considered as vital to the Bill. He thought it essentially vital to it, and it was the duty of the Government to see it put upon a proper footing before they cast any useless obligations upon the unhappy people who still owned land. He was perfectly aware that there were certain feelings in certain people's minds against the costs involved in any dealing with land, but then as far as he knew there was a feeling in many people's minds against any costs in dealing with any subject. The feeling was not confined to the dealing with land. He even knew of some people (of course they were past praying for) who objected to surveyors' charges. All one could do with such persons was to classify them and pass on. The transfer of land had hitherto been dealt with in the right way, viz., by automatic action, and the charge was now reduced to such a point as no reasonable man could complain of. In ninety-nine cases out of a hundred where a large estate was cut up there was a clause in the conditions that the cost should be restricted to two, three, five, or seven guineas, and a man knew precisely what costs he was likely to incur. He ventured to ask whether precisely the same thing in another form would not take place under the present scheme. What benefit would accrue to anybody by the change, even when the registration was complete? A man about to purchase would have to inquire which of the three titles the land about to be sold had, whether the possessory, the absolute, or the qualified. Taking, first of all, a possessory title, which was practically what a purchaser got in most cases at the present time. Everybody who had the misfortune to own property trembled to think how often he would have to inquire into the nature of the title. Supposing he took the

second, he had to satisfy himself what the conditions were; and had to attend at the registry and make inquiries upon the subject. If he got a complete title he took the land out and out, but the owner of the land was put to an enormous expense before he could get that title on the books, and the questions arising were not to be dealt with between the owner and the willing purchaser, both prepared to make certain concessions, or even by an arbitrator, but by one of the most awful tribunals human agency had ever devised—namely, a Government official (generally a very young man), sitting from ten in the morning to four in the afternoon. Considering all this, would not the landowner say when he got into the market, "I have been put to a considerable expense in getting this title, and it cannot be expected that I am going to let a purchaser of the land have it for nothing?" and the effect would be simply to increase the price of the land instead of paying fees to a lawyer. A great amount of worry and trouble would devolve upon everybody dealing with land, and, in his belief, the ultimate cost of getting a right title would not be mitigated by a single farthing.

There was also another point of view from which to look at this Bill. Was it not a little suspicious when the Government introduced a thoroughly technical Bill that they did not take the trouble to consult a single body who could give them reliable information upon the subject? The people who knew most about land were surveyors and lawyers, none of whom had been consulted as a body. The result was that a report had been drawn up by the Incorporated Law Society, which would certainly have pushed out the Bill if it had not been backed up by a Government supported by a considerable majority, and, in this particular case, acting in unbounded ignorance of the technical bearing of the measure.

No impartial person could possibly read the report to which he had referred without being convinced, if any report ever printed could carry conviction, of the utterly unpractical character of this Bill. He hoped that the result of the discussion would be that the Institution would address a similar remonstrance to the Government and induce them to reconsider these mischievous proposals.

It seemed to him that the underlying principle in this Bill was (not perhaps, as had been said, a desire to increase fees, but) the far more dangerous principle of seeking to get everything into the hands of a bureaucracy. This was going on in every direction under the auspices of the Local Government Board, the Board of Trade, and other departments of the State. Not a Bill could be brought before Parliament without elaborate reports being presented from one of these departments, the object of which seemed to be to bring within their control matters which were better left to healthy independent enterprise. In many continental countries it had been found a great mistake to decrease (as this Bill would decrease) the facilities for free dealing between the buyer and the seller. So far from simplifying transfer and making it cheaper, and bringing more land into the market, the Bill would restrict transactions in land, render them far more uncertain and far more costly, and, by putting everyone in a straight-jacket, would render land and house-property more difficult to deal with, instead of effecting the objects aimed at by the Bill.

Mr. E. P. Squarey (Vice-President) said that, while fully appreciating the interesting and elaborate Paper of Mr. Willis Bund, and the excellent remarks of the speakers who had followed him, he could not help asking "were they

"not whipping a dead horse?" It could scarcely be imagined that the House of Lords would tolerate or allow such a Bill as this to pass. And if, as he had been informed, this Bill had been remitted to a Select Committee, that Committee would probably leave but a fragment of the original document submitted to them for consideration to again come before the House of Lords. He, as a member of the Liberty and Property Defence Association, fully shared the views of the last speaker with reference to the tendency of recent legislation to interfere with freedom of contract between parties. Speaking as a director of a large country bank, he thought that the inability on the part of customers to get temporary advances on equitable mortgages without legal costs, would be a grave disability. It would be a positively cruel restriction, and would work an immense amount of damage to the daily business of the country. The Bill, further, seemed framed to invite litigation. At present, litigation, with reference to land, was an extremely rare thing, but the effect seemed likely to be the exposing of the weak points of every title, which was sure to bring about costly and needless litigation. He had himself only dealt with one estate which was registered, and which was acquired for a client for between £70,000 and £80,000. The client wishing to register, the necessary steps were taken, but before the matter had advanced very far, his client was quite tired out, and gave up the idea of registering in disgust, for he found that what his lawyers had passed as a good holding title was one which would not be registered at all by the Registration Court.

Now, he would ask, as a layman, was it not possible for time, "the Great Healer," to give to a possessor a title which in itself should be equivalent to or at least be the basis of a

registered title? Suppose A to be in possession of the rents of an estate, whether a house or land, and by the present excellent Ordnance maps the area from which those rentals accrued was accurately defined and was adopted as the basis of a registered title. Now, say that from 1890 until 1902 (the customary twelve years) the owner of those rents continued to receive them without objection and without any notice of their belonging to some other person. Why should not that title be then regarded as absolute and certain? The idea was possibly crude, and he had no doubt that Mr. Bankes and Mr. Freeman would be able to indicate many difficulties in the way of carrying it out; but he thought that over the greater proportion of the area of England such a plan would operate satisfactorily. Again, Mr. Bankes had spoken of the question of boundaries as one of small moment; but he ventured to think that boundaries in acts of registration were an absolute necessity. It was only necessary that the owners or agents of adjoining estates should go over them, with the aid of the present mathematically correct Ordnance maps, with honest intentions to settle practically every boundary question which was likely to arise, thus obviating any difficulty or any chance of litigation. Boundary questions only became difficult of solution when the parties had previously quarrelled over them.

He had hoped that no additional burdens were to be thrown upon land, which was already sufficiently burdened, and he thought that the landowner did not deserve to have this further tax imposed upon him on transfer. There were sufficient difficulties at the present time external to the question of law, and the adding of another impediment, in the shape of this present Bill, would be an injustice to the landowners upon which they might well appeal to the whole country.

Mr. Watney, referring to a remark by Mr. Bankes that the settlement of boundaries would occasion an immense amount of litigation, said he called to mind at the present time four considerable estates the boundaries of which he had settled and mapped—two in Surrey, one in Somersetshire, and another in Buckinghamshire. There were many difficulties in the way—canal boundaries, railway boundaries, and boundaries in which six feet was claimed instead of the orthodox four feet; but there was not a single difficulty which was not overcome by a give-and-take process. The cost, he admitted, was considerable, but the settlements were all arrived at, and all registered, and the plan, as he had said before, was the title-deed.

Mr. T. Chatfeild Clarke (Fellow) said that, in spite of Mr. Freeman's apparent opposition, he could hardly imagine man now who was not in favour of the principle of registration, for he should have thought that everyone would have admitted that, before dealing with a large estate in order to sell it in small portions, it was highly desirable for the good of the community, and for freedom of sale, that it should be registered. He would not go into the details of the Bill, which might be defective, but it appeared to him that the arguments of Mr. Freeman and of some other gentlemen who had spoken were altogether in favour of registration. It had been said distinctly that land could neither be sold nor conveyed without great trouble and expense under the existing system. Was it not common sense that once for all the expense should be incurred, and that the title should be put clearly upon a register and the charges carried forward as in an account-book? He thought Mr. Bankes had suggested a mode by which any excessive

charge might be thrown over, or, as Mr. Freeman suggested, it might be considered in the price, as he had no doubt it would be. With respect to another point in the proposed Bill, as to a division of property when a man died without a will, what could be fairer than that his estate should be divided equally between his children, and that each boy and girl should take a fair share? He had long felt the injustice and immorality of leaving to the eldest son a large estate and leaving the younger sons almost paupers. Mr. Freeman spoke of the Australian system as being in no way applicable to other countries, but there had been very excellent experiments made in Prussia of late years which were the subject of a special printed report on this very question of land transfer, and where the system had been carried out successfully, with economy and with great simplicity, on a plan fully worth stndying.

Mr. Bund, in reply, said he feared that the great difficulty of registration would be in counties such as Cardiganshire—the home of small freeholders who had as much as they could do to keep body and soul together. If they were to be compelled to lay out even £10 for registration it would be impossible to scrape it together, and the result would be that there would be far less dealing with land than at present. He wished to see as many small freeholders as possible, and it was for the sake of these small freeholders, who were at present hard pressed for money and who might have mortgages called in, that he wished the Government to pause before thrusting such a measure as this down the throats of the people. He would give an instance of the difficulties to which this registration would give rise from a case of his own. There was a part of a cover adjoining some land of

his which he had bought. It belonged to three sisters. Two had a perfectly good title, and they sold. The third died before he could buy her share. Her child was said to have gone to America, and he bought her piece from her husband. He did not think he had much title. However, ever since his purchase, gentlemen of the name of Jones had been writing to him from different parts of America saying they were the child of this lady, and entitled to her third. As to two-thirds he had a perfectly good title. The whole value of the fee-simple would not be above £100, but if he had to register it would prevent his selling the property because of the difficulty about this wretched little bit, and he could not guard himself by offering, as he could now, such title as he himself held upon, and which he believed to be a perfectly good holding title. He felt strongly that there ought only to be one kind of title upon the register, that being a possessory one, for anything beyond that involved an owner in a sea of difficulties.

With regard to what fell from Mr. Bankes, he was quite aware of the provision about a will being executed after a specified day, but by the Wills Act a will became operative, not upon the day upon which it was executed, but from the day of death; and he was not at all clear, and did not think anybody could be, until some Judge had decided the point, whether the construction he had put upon that clause was not the correct one, and that a will made after the date would be invalid unless the land was registered. It was a very nice point, and only showed what he might call the absurdity of a gentleman utterly ignorant of conveyancing endeavouring to draw a Conveyancing Act.

With regard to registration in Australia—Australia had

had no past; forty or fifty years ago when all land belonged to the Government they allotted out the land to different people, and had a register of the lands so allotted, and unless the Government of this country were going to resume all the land in this country and allot it out in the same way, he did not see how they could reason from the Australian precedent. The state of things was so different here that the same reasoning did not apply. With regard to the twelve years which Mr. SQUAREY spoke of, after twelve years one could not bring ejectment, but the twelve years' limitation did not apply to bar a great many other rights—rights of way, common rights, &c., so that one would not after twelve years get a perfect title.

THE PRESIDENT said that there seemed to be considerable difference of opinion on the merits of the Bill, and he was glad to find that the opinions upon both sides had been expressed pretty firmly by those who believed in their particular views. There seemed to him to be many evils attached to registration, and he thought that not the least evil was that everybody should be compelled to register a title, whether he intended to deal with his property or not. The fairest thing would be that registration should be compulsory only upon a transfer of property. That those who did not intend to deal with their property should be compelled to register, and to open up to public notice whatever charges there might be on their property, appeared to him to be an interference with the privacy of property which was not judicious. The impression left upon his own mind by the discussion was that the opinion of surveyors generally was against the Bill as it now stood, and that it must be

much improved before it could be received with approval by the Members of the Institution.

The vote of thanks to Mr. Bund having been put and carried unanimously the Meeting then adjourned.

Paper 154.
No. 261.

THE RATING OF MACHINERY BILL, 1888.

By EDWARD RYDE (Past-President).

Read at the Ordinary General Meeting of The Surveyors' Institution, *Monday, May 14th*, 1888.

CHARLES JOHN SHOPPEE (VICE-PRESIDENT) IN THE CHAIR.

This Bill is intituled a Bill to amend the law relating to the rating of Hereditaments containing Machinery. It was ordered to be printed on the 9th of March, 1888. Both on the endorsement of the Bill as well as on its internal pages there is the head-line—"Rating of Machinery." It appears as though this head-line should be the "Non-Rating of Machinery," for if we examine the Bill we find that such would be the effect of its passing into law.

The preamble recites that—

> "Whereas questions have from time to time arisen as
> "to how far machinery is to be taken into
> "consideration in estimating the rateable value
> "of the premises in which any trade, business,
> "or manufacture is carried on, and it is expe-
> "dient to amend the law relating thereto."

Section 1 provides that—

> "From and after the *passing of this Act*, in estimat-
> "ing for the purpose of assessment to the Poor
> "Rate, County Rate, Borough Rate, or any
> "other rate, leviable upon property rateable to
> "the relief of the poor, the rateable value of
> "any tenement or premises occupied for any
> "trade, business, or manufacturing purposes,

"the annual value of the machinery in this
"section specified, upon such tenement or pre-
"mises shall be taken into consideration; that
"is to say,—

"1st. Water-wheels, steam, gas, air, and
"electric engines, steam boilers, and
"all other fixed motive powers and
"the fixed appurtenances thereof:

"2nd. Shafts, wheels, drums, and other
"fixed power machinery which trans-
"mits the action of motive power to
"other machinery, fixed or loose."

Section 2 provides that—

"Save as in the last section provided, no machinery,
"whether attached to the tenement or premises
"or not, shall be taken into consideration in
"estimating such rateable value."

Section 3 provides that—

"Nothing in this Act contained shall apply to the rating
"of waterworks, gasworks, coal mines, or pro-
"perties subject to the provisions of the Rating
"Act, 1874."

It is obvious that the effect of the passing of this Bill would be to exempt from rating all machinery except the motive power, as described in Sub-sections 1 and 2 of Section I., of all factories and works except those mentioned in Section III., and it would create such an amount of unfairness between different classes of ratepayers, one of whom, namely, the gas companies, is under the most perfect conviction at the present time that it is already most unfairly rated by comparison with other people.

This being the last night of the Session, it is necessary that this Paper should be a short one, so that the discussion upon it may be got through this evening. It is not proposed,

therefore, to discuss at any length the question whether the preamble of this Bill is capable of proof, but simply to set forth a sufficient amount of objection to the Bill to establish the inexpediency of passing such a measure as this without more consideration than has evidently been bestowed upon its preparation.

It may be admitted that questions have from time to time arisen how far machinery is to be taken into consideration in estimating the rateable value of trade premises. But these questions have always been limited, more or less, to the further question as to where fixed plant and machinery ceases and chattels begin. There has never been any doubt that plant and machinery, which constitute parts of the rateable hereditament in the same way that buttons on a coat constitute a part of the perfect coat, is rateable in so far as it enhances the value of the rateable hereditament; but the difficulty, whenever it has arisen, has been to determine what is a part of the rateable hereditament and what merely a chattel. It is probable that with any amount of legislation some difficulty of the kind will constantly crop up, but there are many of us who have had much experience who know, or think we know, exactly to what extent it is necessary and expedient to take such questions into consideration, and we have sufficient confidence in our knowledge to enable us to perform our duties with, at all events, rough justice to the parties interested.

All houses, buildings, and trade premises to which machinery is *annexed, attached,* or *affixed,* are rateable under the existing law as houses, buildings, and trade premises fitted with such fixtures, machinery, and plant.

A "*water corn mill,*" for example, is rateable as such, that is to say, a mill driven by water power with such machinery *affixed, annexed,* or *attached* thereto as is necessary to constitute it a water corn mill.

A "*steam flour mill*" is in like manner rated as such with its steam engines, boilers, and mill machinery *attached affixed*, or *annexed* to it. Without the machinery the mill buildings and motive power would have no value at all, or at any rate a very different value.

A "*gasworks*" is rateable as such, including its retorts, condensers, purifiers, gas holders, and so on, without which the premises could not be used as gasworks.

The Bill now under discussion proposes not to interfere with the rating of gasworks, although it exempts fixed plant and machinery in many other works except the motive power and its shafting.

In the case of a factory, in which the machinery is for the most part of the character of chattels, the factory only is rated, but always with reference to the use that is made of it by its occupier. A good illustration of this kind of factory is that of the Halstead Silk Mills, which came under the consideration of the Court of Queen's Bench in the year 1867. In that case the decision was that the steam and water power and the main shafting were rateable, but that the machines were not to be included as enhancing the rateable value.

It may be interesting in this Paper to relate a small incident which occurred in connection with this Halstead case, to show what pains were taken by some counsel in those days to become familiar with their cases. The late Sir William Bovill, then Mr. Bovill, was counsel for the appellants in the case. On arriving at Chelmsford on Monday evening, the 15th October, 1866, for the purpose of conducting the appeal before the Court of Quarter Sessions on the next day, Mr. Bovill discovered that the Halstead Mills were too far from Chelmsford for him to have a view of them. He expressed his regret at this circumstance, and said that he should be less able to conduct the case satis-

factorily in consequence. The next morning, on assembling at the Sessions House, it was found that Mr. Bovill had been up very early, that he had procured a horse and had ridden over to some mills in the locality which he was informed were somewhat similar to the Halstead Mills, and had examined the process of silk manufacture and the character of the machinery employed. He explained at the time to the author of this Paper the advantage that view had been to him.

The Halstead Mills were called a silk and crape factory. There were four principal buildings standing upon an acre and three-quarters of land. There were also some smaller buildings. The manufacture carried on was that of silk throwing and weaving, and the machinery employed consisted of two classes, one of which was engaged in throwing or preparing the silk for the looms, and the other in the weaving of manufactured silk. In the first class there were winding engines, drawing engines, and throwing or twisting machines; and in the second class, warping machines, plug engines, and power looms. Many of these machines were of considerable size, and were fastened to the floors of the several buildings by screws passing through holes in the feet of the machines; but all the fastenings were for the sole purpose of steadying the machine when in use, an object which could have been attained by making heavier machines, or placing weights upon them. They were all capable of being removed without damage or injury to themselves or the buildings, and are commonly bought or sold as chattels. They were all driven by water or steam power, communicated to the several machines by shafts and gearing which is known as main or driving gear, or main shafting, or by straps and bands therefrom.

The Sessions had found that the evidence was insufficient to satisfy the Court that the machines sought to be rated

were so essential to the use of the fixed motive-power or the freehold as to make the machines rateable property.

The Lord Chief Justice, in delivering the judgment of the Court of Queen's Bench, said :—"The case is a perfectly "plain one. It is quite clear that you cannot rate chattels "as such, and it is equally clear that the machines now in "question, the value of which it is sought to add to the "rateable value of the house for the purpose of assessment, "are chattels. They are not in any way attached to the free- "hold. They are fastened to it, it is true, but they are not "affixed to it so as to make them part and parcel of the free- "hold. They have been simply attached to the building "for the purpose of steadying the machines for the better "and more convenient use of those machines. I will assume "that the building would be let as a silk mill, but it does "not follow that these machines have been so connected with "the building as to pass with it, or that their use would not "be severable from the use of the building. These machines "are common things in Lancashire. They are carried from "one manufactory to another, and can be removed from one "room to another. They are not so permanently fixed to the "building as in the case of the gasworks, and the case of the "North Staffordshire Railway. I think that the finding of "the Quarter Sessions, as I think I said in the outset, really "concluded the case."

Mr. Justice Mellor said :—"That which is rated to the "relief of the poor is land and houses made more valuable "by that which is annexed and which is intended for the "permanent use of the house in a particular manner. It "appears to me that there is no sensible distinction between "this case and the case of a ready furnished house, supposing "a house is furnished for the purpose of letting into lodgings, "you might as well say that the furniture there was rateable "as the machinery here is rateable. The machinery in this

" mill is very much like the furniture in a house let ready " furnished to people, and I do not see any distinction."

Mr. Justice SHEE said:—" I am of the same opinion. " ' The Quarter Session determined that the steam and water " ' power and the main shafting are rateable, and why?' " Because they were fixtures which added permanently to " the value of the premises. They were permanently fixed to " it, and unless they were there constituting the motive power " by which the manufactory was carried on, no manufacture " could be carried on; but, as respects the property in question, " this is evidently of the nature of personal property or " chattels; it is expressly said that they are separate. 'The " ' machines in question are separate and distinct from each " ' other, are moveable at will, by being taken down and put " ' up either for repairs and arrangement; a change for use " ' of the building from the silk trade to any other factory " ' purpose, or any other cause, without damage or injury " ' either to the machinery or to the buildings, and are " ' commonly bought and sold, used and received, as chattels.' " It seems to me it would be impossible to hold that property " of this description could be rated to the relief of the poor " without holding that all personal property should be rated " to the relief of the poor. Therefore it seems to me that " the Sessions have come to the right conclusion."

All the Judges in the Halstead case considered themselves governed by the decision in the *Queen* v. *Lee*. That was a case taken to the Queen's Bench in the year 1866. The appellants were the Phœnix Gas Light and Coke Company. The rate appealed against was made on the 2nd of July, 1864. The property of the company in Lee Parish, exclusive of meters, consisted only of mains and service pipes, but the way in which the appeal arose was in the valuation of the entire property in several parishes as a going concern. The valuation set forth on page 244 of the

Queen's Bench Reports of 1866 was made by the author of this Paper, and the great question in difference arose in the amount of tenants' capital, which it will be observed contains the following items, viz. :—

Working capital - - -	£50,000
Present value of meters - -	35,000
Present value of retorts - -	18,000
Present value of fixtures and utensils - - - -	97,000
	£200,000

The Court of Quarter Sessions reduced the item in the working expenses account for law costs and statuteable deductions, but found upon the evidence before them that all the other deductions, that is to say, 5 per cent. interest, 10 per cent. trade profit, and $2\frac{1}{2}$ per cent. risks and casualties upon a capital of £200,000, were proper to be made. They amended the rate in the Parish of Lee by reducing it from £1,213 to £364. The Parish appealed against that decision, and contended, first, that the meters, which in all cases are placed upon the premises of the consumer, are not in any way connected with the manufacture, nor are they indispensable, though used for the distribution of gas and the earning of profits.

Cockburn, Chief Justice, in delivering judgment, said :—"The case, I think, presents no real difficulty. I "think that Mr. Meadows White has altogether failed "in showing that the meters are anything more than "ordinary chattels. The other things it is plain fall under "one of two classes of articles which are to be taken into "account as enhancing the value of the buildings. The retorts, "I am satisfied, are so far fixed to the freehold as to be "attached and secured to it, and to become part of it, and

" they must be treated, therefore, not as removeable fixtures,
" but as fixtures so connected with the freehold as to have
" become parcel of it. With regard to them there is no
" difficulty, they are rateable as any part of the entire
" freehold would be. The other items seem to me, one and
" all, to fall within the principle of the cases referred to
" in the argument, *Reg.* v. *Southampton Dock Company*,
" and *Reg.* v. *North Staffordshire Railway Company*. In
" the latter case the Court, after time taken to consider,
" laid down this rule: that when things which, though
" capable of being removed, are yet so far attached as that
" it is intended that they should remain permanently con-
" nected with the railway or other undertaking, or with the
" premises used with it, and remain permanent appendages
" to it, as essential to its working, those must be taken
" to be things increasing the rateable value of the land,
" and in respect of which the company are not entitled to
" have a deduction made. That principle applies directly
" to the present case. There can be no doubt that
" the purifiers and the gas holders are parts of the
" works which are absolutely necessary for the manufacture
" of gas which is the purpose of the undertaking. There
" can be no doubt that it was intended, when those things
" were erected, that they should remain permanently con-
" nected with the premises; that they should remain
" permanent appendages to it as essential to its working.
" They therefore fall within the rule laid down by the
" Court in that case. If the company desired to abandon
" this undertaking, and to let the gasworks to another
" company or any individual, what the lessee would propose
" to take and pay rent for would not be land independent
" of all these articles, all of them essential to the manufacture,
" viz., gas. The retorts, purifiers, and gas holders are all
" as essential to the using and occupying these premises as

" gasworks as any other thing that can possibly be suggested, " however permanently attached to the freehold. They " seem therefore clearly to come within the principle laid " down in that case."

Mr. Justice BLACKBURN says:—" The rateable value of " the premises is to be determined under the Parochial " Assessment Act according to the rent that a hypothetical " tenant, making the suitable deductions, would give for " the rateable property; and the Sessions have quite properly " proceeded to try to ascertain that rent. The property in " this parish is a portion of a much larger property which " the gas company possesses in this parish and in others. " The first thing the Sessions had to do was to ascertain the " rateable value of the entire property which the company " possessed, and afterwards to see what proportion of it belongs " to this parish. Now in proceeding first to get at the value " of the entire property, as it was not a thing which in " practice is let to a tenant, the value cannot be ascertained " by what people would give for it in the market; and the " Sessions had, as is common in these cases, to ascertain for " themselves what the value would be, looking at the " elements which a tenant would take into consideration " on renting from year to year. The question is, as was " conceded, what would a hypothetical tenant give for the " whole of the rateable property; and although in point of " fact, as stated in the case, the person who actually did " occupy would not pay rent for portions of the property " which are fixed to the rateable premises so as to become " part of it, but which would become capable of removal, " because instead of paying rent he would purchase them, " yet we are agreed we must look to what a hypothetical " tenant, taking the premises as they stand, would give for " them, with those portions which were annexed to the pro- " perty, so as in effect to become part of the rateable

" property. Upon that principle, the Sessions were wrong."

Mr. Justice Lush says:—" The sum to be ascertained is " ' the net annual value of these premises at which they " ' might reasonably be expected to let from year to year, " ' free of all usual tenants' rates and taxes, and deducting " ' the probable average annual expenses necessary to main- " ' tain them in a state to command that rent.' The question " is, what is the rateable subject which is comprised within " the premises to be rated? Now I apprehend that the " premises to be rated are to be taken as they are, with all " their fittings and appliances by which the owner has " adapted them to a particular use, and which would pass " as a part of the premises by a demise of them to a tenant. " That seems to me to express what, in other words, has " been expressed in the cases referred to by the other mem- " bers of the Court. Wherever the things have become so " far a part of the premises that they would pass by a " demise of these premises, they would form a part of the " rateable subject of the inheritance, for the purpose of " rating. When we have to apply that test to any particular " thing, the question is not what a tenant might remove, nor " what might be taken in execution, but what, as between " landlord and tenant, would pass as a part of the premises " which he would let and the tenant would take. Now, " applying that rule, I cannot entertain a doubt that, with " the exception of the meters, all the subjects of discussion " here would pass as a necessary part of these premises. " Without the retorts, purifiers, steam engines, and gas " holders, the premises would be worthless for the purpose " for which they were erected; the building would not be a " gas manufactory at all. All these things are fixed and " so far annexed as to be intended to be permanent, and as " really necessary for the use of the premises as gasworks. " Therefore I think, except the meters, that deductions in

" respect of none of these items ought to be allowed in " ascertaining the ultimate net annual value. The meters " are on a different footing, and in no sense a part of the " gasworks. They are not upon the land occupied by the " company, and are not fixed in such a way as to be a part " of the freehold."

The case of *Chidley* (Appellants) v. *Churchwardens of West Ham* (Respondents) has created a little misunderstanding. Chidley the appellant was a distiller, and in his distillery there were iron tanks so large as to supply the place of a roof to the buildings, refrigerators, mash-tuns, pumps under backs, wash-backs, and reservoirs. The articles which were all heavy, and in some cases screwed down to steady them, constituted with the fixtures one continuous process necessary for distilling. It was held in that case that as the articles were merely steadied by their own weight, or with the help of screws, and could be detached and sold separately, they were not fixtures and not included as part of the rateable value of the buildings for the purpose of the poor rate. Justice Blackburn, in his judgment on that case, said :—" There is " no difficulty as to the rule of law on the subject, though " there is considerable difficulty in applying the rule. What- " ever is fixed to the realty so as to pass as landlord's fixtures " in a demise of the premises, must be taken to be part of " the premises for the purpose of ascertaining its rateable " value." He goes on to say " that the question must " depend mainly on two circumstances as indicating the " intention, namely, the degree of annexation, and the object " of the annexation. Where the article in question is no " further attached to the land than by its own weight, it is " generally to be considered a mere chattel." On the other hand, he states that " an article may be very firmly fixed to " the land, and yet the circumstances may be such as to " show that it never was intended to be part of the

"land. The anchor of a large ship must be very firmly "fixed in the ground in order to bear the strain of the "cable. Yet no one could suppose that it became part "of the land, even though it should chance that the ship-"owner was also the owner of the fee of the spot where "the anchor was dropped. An anchor similarly fixed in the "soil for the purpose of bearing the strain of the chain of "a suspension bridge would be part of the land."

Mr. Justice Lush refers to the tanks on the roof which, he says, "are not fixtures, and though it is said they form "the roof itself of the buildings, still all that this means is "that while they are there no other roof is required. That "circumstance does not make it so annexed as to cease to be "a chattel." It is the fact that they form the roof which has created the difficulty in connection with the Chidley case. That is to say it has been assumed by some that the building of which this tank forms the roof is a building partly rateable and partly not rateable. That is not the view which a practical surveyor who was assessing the building would take of the matter. He would assess the building at its value for the purpose for which it was used, having due regard to the fact that the tank constituted its roof, although the tank itself is not to be rated. Speaking generally, the cold-water tanks of breweries and distilleries are always rated.

In a valuation which was made by the author of this Paper for the appellants in the case of the large breweries of Messrs. Bass at Burton, all engines, pumps, and boilers were treated as rateable, and so were all hot and cold water tanks.

The Bishopwearmouth is a case of more recent date, which some have assumed has altered the law of rating machinery. The rate appealed against was made on the 5th May, 1875. The premises were used by the occupier,

who was also the owner, for building and repairing iron and wooden ships and vessels. They are situated on the River Wear, in the township of Bishopwearmouth. They comprised several acres of land, upon which were constructed slip-ways for building and launching ships, a large graving dock, and extensive workshops and warehouses for the purposes of their trade. There was also upon the premises valuable machinery and plant. Judgment was delivered on the 24th of January, 1878, by the LORD CHIEF JUSTICE, who said :—"This case was argued before my brothers MELLOR "and LUSH and myself. It is an appeal against a rate for "the relief of the poor, in which, in assessing the appellant's "premises, the value thereof has been treated as enhanced "by reason of extensive machinery attached to them for the "business carried on by the appellant, which is that of "building, repairing, and fitting out iron and wooden ships. "For this purpose the appellant is in the occupation of "extensive premises, into and upon which the machinery "in question, and which is of a ponderous character, is "affixed. The law on the subject of rating with reference "to premises on which machinery has been erected with a "view to the use of such premises for the purpose of manu-"facture *is settled by former decisions.* In *R.* v. *The* "*Birmingham and Staffordshire Gas Light Company,* 6 "A. & E. 634, where a rate had been made under a local "Act which required a valuation to be made periodically of "all houses, &c., it was held that where steam engines or "other machines were *affixed* to the houses, the houses were "rateable according to their value as increased by the "machinery. In *R.* v. *Guest,* 7 A. & E. 951, it was "held that in a rate upon buildings to which machinery is "*attached,* the real property ought to be assessed according "to its value as combined with the machinery, without re-"gard to whether the machinery was real or personal

" property, so as to be liable to distress or seizure under a *fi.*
" *fa.*, or whether it would descend to the heir or executor,
" or would belong at the expiration of a lease to the landlord
" or the tenant. This rule was again affirmed in *R.* v.
" *The Southampton Dock Company*, in 14 A. & E. 557, in
" which it had been expressly found by the Sessions, that
" the fixtures in question, although *attached* to the freehold,
" were capable of being detached from it as easily and with
" as little injury to it as other fixtures put up for the trade of
" the tenant, and usually valued as between incoming and
" outgoing tenants. In the case of *R.* v. *The North*
" *Staffordshire Railway Company*, Law Journal, M. C., 71,
" it was held that things which, though capable of being
" removed, were yet so far attached to the freehold that it is
" intended that they shall remain permanently connected
" with it, and shall remain permanent appendages to it, as
" essential to the purposes for which the premises are used,
" must be taken into account in estimating the rateable value of
" the premises. In *R.* v. *Lee* (Law Reports, 1. Q. B. 241),
" the principle was applied to the retorts, purifiers, gas holders,
" steam engines, boilers, and even pumps and exhausters on
" premises fitted up and used as a gas manufactory, as being
" essential to the working of the manufacture, and therefore
" as having been erected with a view of their remaining
" permanently *attached* to the premises, even though some of
" the machinery, such as pumps and exhausters, would have
" been removeable as trade fixtures. Applying the rule
" established by these decisions to the present case, it appears
" to us, after having carefully considered the character of
" the machinery in question, that the whole of it, though
" some of it may be capable of being removed without
" injury to itself or the freehold, is essentially necessary to
" the shipbuilding business to which the appellant's premises
" are devoted, and must be taken to be intended to remain

" permanently attached to them so long as those premises " are applied to that present purpose. *The case is conse-* " *quently governed by the decisions which have been referred to,* " and our judgment must therefore be for the respondents."

The Tyne Boiler Works case is the most recent case. Judgment was given on the 6th of March and the 5th of April, 1886, and it will not be easier to state the effect of the case than to quote the judgment, which is as follows:—

" This is a case stated by the Court of Quarter Sessions " to determine whether the premises occupied by the appel- " lants as a boiler factory have been properly rated to the " Poor Rate. The property in question comprised upwards " of 5,000 square yards of land by the River Tyne, held " under a lease for a long term of years, and upon which a " large brick building had been fitted up with machinery " and plant for the purpose of making boilers and erecting " them on board vessels. In arriving at the rateable value, " the machinery and plant had been taken into consideration " as enhancing the value of the premises; but, as the " machinery and plant were not so affixed to the soil as to " form part of the freehold, it was insisted by the appellants " that they ought not to be taken into account in assessing " the rateable value of the premises. It was admitted upon " the argument of the case by the learned counsel for the " appellants, that the justices had properly applied the " principle laid down in the cases from the case of *Rex* v. " *St. Nicholas, Gloucester* (1 Term Rep. 723), decided in " 1783, to that of *Reg.* v. *The North Staffordshire Railway* " (30 L. J. 68, M. C.), decided in 1860, namely, that when " things, although capable of being removed, are per- " manently connected with the land, to be used, while so " connected, for the purpose for which the land is employed, " they must be taken into account in assessing the rateable " value of the premises. It was contended before us, on

" behalf of the appellants, that more recent cases had over-
" ruled those decisions, and had established that, unless the
" machinery was annexed to the freehold for the purpose of
" improving the inheritance, and came within the definition
" of what is a fixture in the strictest sense, it ought not to
" be taken into account. Reliance was placed upon the
" language of the late Cockburn, C.J., and of Blackburn, J.,
" in the case of *Reg.* v. *Lee* (13 L. T. Rep. N. S. 704; L.
" Rep. 1 Q. B. 241), and upon the decisions in *Reg* v. *Halstead*
" (32 J. P. 118); and *Chidley* v. *The Churchwardens of*
" *West Ham* (32 L. T. Rep. N. S. 486). In the case of
" *Reg.* v. *Halstead*, the machines were worked by steam
" power, and used in a silk-mill in weaving silk, being
" affixed to the floor by iron screws. It was held that
" they ought not to be taken into account in estimat-
" ing the rateable value of the mill, on the ground
" that they were chattels only. In *Chidley* v. *The Church-*
" *wardens of West Ham*, it was said that the plant of the
" distillery, including tanks so large as to form the entire
" roof of the building, mash tubs, pumps, and reservoirs,
" although attached permanently to the soil, were not fixtures,
" and did not contribute to the rateable value of the premises.
" On examining these cases closely, it seems to us that they
" fail to support the appellants' case. In *Reg.* v. *Lee* the
" judges recognised the full authority of the previous decisions,
" and only as an alternative ground for their judgments
" treated the plant of gas-works as in the nature of fixtures,
" incorporated with the land on which they were placed. In
" the *Halstead* case, the Court does not seem to have decided
" more than that the conclusion come to at Quarter Sessions,
" that the articles in question were mill furniture only, could
" not be said to be wrong in law. In the case of *Chidley* v.
" *The Churchwardens of West Ham*, the case submitted to the
" Court was, whether the articles in question were rateable,

" and not whether they should be taken into account in " determining the rateable value of the distillery, and, while " a doubt was expressed which would seem to have been " well founded, whether the Court was answering the questions " intended to be put, the judges held that the articles *per se* " were not rateable unless they formed as fixtures part of the " premises rated. Further, we have had before us what " appears to be a full report of the argument and judgment " in *Laing* v. *The Overseers of Bishopwearmouth* (37 L.T. " Rep. N. S. 781; 3 Q. B. Div. 209). That was the " authority upon which the Court of Quarter Sessions acted " in this case. It was argued in that case, as in this, that " the recent decisions to which we have referred had thrown " doubt upon what had previously been supposed to be the " law; but the Court declined to accept that view, and " repeated the rule in terms which seem to us clearly appli- " cable to this case, namely, that machinery ought to be " taken into account where the whole of it is essentially " necessary to the business to which the premises are devoted, " and where it is manifest that the machinery is intended to " remain connected with the premises so long as they are " used for the same purpose. Here the land and machinery " combined are used for carrying on the business, and there " seems to be no reason why the combination, which is " essential to this use of the land, should not be rateable. " We think that the order of the justices must be upheld.

" *Appeal dismissed.*

" —(L. T., vol. liv., N.S., p. 612.)"

Time does not admit of any further reference, nor does it appear to be at all necessary. The general effect of all the decisions and of all the practice is that, where machinery and plant is *affixed* to buildings or manufactories, the rateable value of such buildings and manufactories is to be

arrived at by taking into consideration the machinery and plant as enhancing the value of the premises; and this principle is not affected although the machinery may belong to the tenant and the buildings to the landlord.

Machinery sufficiently *attached* for the purpose of being steadied, but not sufficiently *attached* to make it form part of the rateable hereditament, is not to be taken into consideration in fixing the rateable value of the premises.

Chattels (and machinery in the nature of chattels) are in no case rateable, there being, in fact, no hereditament to rate.

It is to be observed that in all the judgments of the Court of Queen's Bench the words "*affixed, annexed, or attached,*" *or one of them,* are, or is, invariably used as a condition precedent to the machinery being rated as part of the freehold hereditament. It is true that Lord Esher, in delivering judgment in the Tyne Boiler Works case, has thrown a little doubt upon the meaning of the word "attachment." He says "the word 'attached' may not have "been used by the Court as meaning physically attached, "because if, by attached, the Court meant only physically "attached, then a piece of machinery weighing many tons "which rests by its own weight and which is never in- "tended to be removed as long as the premises are used "for the same purpose, but which is not bolted or screwed "to the said premises, is not to be taken into account. "But if there are some screws by which it is fixed, it is to "be taken into account. Such a consequence seems to me "to be monstrous. I do not think the Court meant by the "word 'attached' that physical attachment should be the "test. It becomes therefore necessary to consider what is "meant by the word 'attached' in the decisions on the "subject. I may not succeed in expressing the rule which "is to be deduced from the cases with absolute accuracy,

" but, in endeavouring to do so, I will leave out the word " ' attached,' or any other similar expression. I believe the " rule really to be that things which are on the premises to " be rated, and which are there for the purpose of making, " and which make, the premises fit as premises for the par- " ticular purposes for which they are used, are to be taken " into account in ascertaining the rateable value of such " premises. Of course it is not all things on the premises, " or that are used on the premises, which are to be taken " into account, but things which are there for the purpose of " making, and which do make, them fit as premises for the " particular purposes for which they are used. It seems to " me that when things are brought into that category they " would pass by a demise of the premises as such as between " landlord and tenant; and that so the test proposed by " Lush, J., and that which I propose become in substance " identical."

It really comes back to the region of common sense to determine what machinery, plant, and fixtures go to the enhancement of the value of the rateable hereditament, and what is to be regarded as mere chattels; and with all respect to the legal profession there are probably as many ratepayers in this country who would be willing to leave that question to the practical common sense of a surveyor of experience as there are who would go into litigation upon it. By referring to the Bill which is under review it is perfectly clear that any such legislation as this Bill suggests would create difficulties which do not now exist, and which one never even dreams about. For instance, waterworks are to remain rateable just as they now are, but railways and canals are to be subject to the exemption. A boiler-maker's shop in the occupation of a water company would be rateable at its value as enhanced by the machinery employed in the manufacture. A similar shop in the occupation of a railway

company would be rateable only as mere land and buildings. The effect upon house property and agricultural land would be very great, and much additional burden would be thrown upon that class of property.

Mr. E. J. Castle, Q.C. (Associate), in proposing a vote of thanks to Mr. Ryde for his Paper, said that it seemed to him not quite to meet the difficulties of the case. The very fact that it was necessary to apply to Parliament to exempt machinery from rating seemed to admit that by the present law such machinery was rateable, and Mr. Ryde had therefore simply pointed out what those who promote this Bill in Parliament admit—that machinery is rateable. It was simply sought to alter the law as laid down by the Courts, and the question was whether such an alteration was justifiable. It was a very wide question. Many Members present must know that there were differences of practice cropping up in different parts of the country. In Bristol the custom was to rate the steam power, and the shafting as well as the driving bands; but there they stopped. All machines driven by bands from a central motor were not rated. In London, on the other hand, everything had been rated according to the law. In the North the view laid down in Bristol had been adopted, taking the steam engine and shafting, and excluding all the remaining machinery. Some recent decisions, however, had carried the matter to a ridiculous extreme.

What had now to be considered was not what the law is, but what it ought to be. And the whole case was this. It was admitted that the object of rating was not to find out any imaginary rent, but to fix a basis upon which to distribute equally the local burdens which the parish or union had to support. Up to the time of Queen Elizabeth that had been done, but in the forty-third year of her reign a purely tentative Act was passed, but which was still binding, and

with which no one had had the courage to deal. By this Act every owner or occupier of lands and houses was to contribute to the poor. If an occupier, he was to be so rated, the idea being that a man should not contribute in two capacities. What did the word "house" mean? That, he thought, was the best practical test in deciding what was rateable and what not rateable. The word "house" seemed to him to signify a place that holds something, and by the Act a house was to be rated and not the furniture, no mention being made of manufactories. The primary idea seemed to have been to rate the building and not what it contained, and in bringing matters down to a common basis it might be fair to take that view of the intention of the Act. Taking, for an example, the great organ in the Crystal Palace, he would like to know whether Mr. Ryde would describe it as a part of the building or as a piece of furniture. It seemed to him necessary to adopt one of two principles, either to take the whole of the machinery that belongs to the trade or to fall back upon the mere building. The latter he held to be a better way, because the tax on machinery was a tax upon trade. For instance, a man carrying on a trade in London had his machinery seriously taxed, while another man carrying on the same trade in Manchester, and with, perhaps, some slight modification in his machinery, was not taxed. It was very evident that the two men had very different advantages, which showed that it was a more serious question than appeared at first sight whether machinery should be rated.

It had been said by Mr. Ryde that railways and canals were to be subject to exemption; but he doubted whether a railway, with its own shops for repairing boilers, &c., would have those shops exempted. To show the difficulty of drawing a line of distinction, was an ordinary black-

smith's anvil exempt? were the forge and the bellows exempt? Again, a grocer's counter was necessary to the grocer's shop, and should therefore, on this showing, be rated; but so was a butcher's block to the butcher's shop, but was the block to be rated? The Bill appeared to him to be an attempt to bring in special legislation for special cases, instead of dealing with the subject in a broad and comprehensive way. He would not express an opinion on the question of what was the fair principle on which to distribute the local burdens; but the real question was whether it would not be fair to bring all these things in at once or to exclude them all, so that what was law for one might be law for another. There were difficulties, as in the case of the brewery mentioned by Mr. Ryde. There the brewing was effected in large coppers and cooling vessels, all of which were held to be rateable. They were not machinery; for he understood machinery to mean things driven by steam-power for the purpose of manufacture. But the whole question ought to be considered in a broad sense, and he felt it his duty to protest against the Bill being put forward and passed in its present very imperfect form.

Mr. W. Eve (Fellow), in seconding the vote of thanks, said he should like to make a few comments upon the wording of the Act before he alluded to the Paper itself. In the first place, it was a short Act, and extremely difficult to understand. It was singular that it did not allude to gross estimated rental at all. He apprehended that the gross estimated rental must be arrived at on the same principle as at present; and then there would be this difficulty, that there would have to be deducted the maintenance and repair of the particular machinery which was not to be included in the rateable value; and yet these deductions, in many cases, were not to exceed a given percentage, as set

out in the schedules to the Acts. Without an alteration in the mode of assessment for the property-tax, which was based on the gross estimated rental, the way out of this difficulty he did not exactly see. The next point was that the Bill alluded to machinery only. He had referred to a dictionary for the meaning of the word "machinery," and found that it certainly did not include all plant. With regard to plant, it was not at all easy to draw the line as to what should be included in the rateable value, and this Bill would not solve that difficulty. Again, as he understood this Bill, it did not affect hydraulic machinery at all; but if it did what was to be included and what excluded? Were the accumulators to be excluded? Again, there were many machines that had engines attached to them, although the general system was to have a main engine and separate machines; but the Bill proposed to rate all "fixed motive "powers *and the fixed appurtenances thereof.*" With regard to what Mr. RYDE had said, that in Bass's case the engines, pumps, and boilers were treated as rateable, as well as the hot and cold water tanks, the case was never taken to a superior Court; but there were a great many other things included besides those mentioned; for instance, all the mash tuns, the receivers, the refrigerators, and machinery for preparing and working wood and iron, were included for the purpose of determining the rateable value.

One of the Judges who decided the Chidley case had said:—"We are not asked to say whether these things go to "enhance the rateable hereditament, but whether they are "in themselves rateable." And therein lay the sole and whole distinction between the Chidley case and the Halstead case. If that case were to be tried over again, and the case stated, as the Bishopwearmouth case was, by the present Attorney-General, he ventured to say the machines would all have come in towards the enhancement of the

rateable value of the hereditament. In both these cases it was asked, Were they rateable? And in each case it was decided that they were not. The present Master of the Rolls had by his decision very clearly pointed out that it was not a simple question of attachment only. In the common-sense view it would be an absurdity that a steam hammer which was not attached should escape rating, and that some light fixed machinery should be included, and he had brought the whole matter clearly before them by his decision in the Bishopwearmouth case, which turned on the question—Is the article such as to be necessary or likely to be used permanently for the purposes of the business carried on on the premises to be rated? All those things which were so necessary must be taken into consideration as enhancing the value. The only doubt that arose in his (the speaker's) mind after that decision was this—To what extent were they to be taken into consideration?

This was rather an important point, which he had never heard discussed. He had always acted on the principle, that they must go to enhance it if it was necessary that they should be there. Therefore the whole question was not whether attached or not attached, but whether necessary to the business carried on in the hereditament. With regard to Mr. Castle's observation that the system of rating was not carried out as fully in the North, he thought that they did rate these things there—perhaps, rather more than in the South. Again, Mr. Castle had spoken of the system as being a tax upon industry. But what improvement was not a tax upon industry? The only question in all these matters for a person to ask himself was this, "Will the "benefit going to accrue to me pay me fair interest on my "outlay *and* enable me to pay increased rates on the here-"ditaments I hold?" He could not see why a person who put a machine in to improve his manufactory should not

be taxed just as much as the landlord or occupier of a farm who goes to the expense of drainage, and by that means improves his hereditament, and has to pay rates in respect of it. The same principle applied to many rates on development of property. He hoped this Bill would not pass in this crude and unsatisfactory state. He thought that the law was good and excellent as it stands now, and that the Bill was in no way an improvement on the Act of Queen Elizabeth.

Mr. T. F. Hedley, Junr. (Fellow) said he would like to point out that, after defining what machinery was to be rated, the Bill said "save as in the last section provided, no machinery, "whether attached to the tenement or premises or not, shall "be taken into consideration in estimating such rateable value." That would, for instance, exempt most of the other machinery and plant. Moreover, in a brewery there was no definition whatever of the word "plant"—an omission which would lead to a great deal of difference and dispute as to what ought to be included in the assessment. Again, that "the fixed appurtenances" of the motive power were to be included. Now, what were fixed appurtenances? In the case of a shearing and punching machine at a ship-building yard, for instance, those shearing and punching machines had very frequently what were known as their "own cylinders," so that they were absolutely attached to the engine, and consequently the whole thing would be rateable, whereas a punching machine simply served by the pipes from a boiler would be exempt. Then, again, in the case of furnaces. The convertors of a Siemens plant would be rateable, whereas the convertors of a Bessemer plant would not. In fact, the Bill was most imperfectly and badly drawn—evidently by some one who had very little knowledge of the law as it

at present exists. For instance, it said in Clause 3 "nothing "in this Act contained shall apply to the rating of waterworks, "gasworks, coal mines, or properties subject to the provisions "of the rating Act, 1874." Now, there was not one of these properties that was rateable under the Act of 1874.

He did not agree with Mr. Castle that in the North only what was termed motive power was assessed. All machinery was assessed, in accordance with the decisions given, first in Laing's case, and secondly the Tyne Boiler case—that was to say, all machinery that was essentially necessary and was intended permanently to remain on the premises for the purpose of carrying on a particular business. He did not therefore know that Mr. Ryde was going far enough when he said the question they had to determine was, "what machinery, plant, and fixtures go to the enhancement of the value of the rateable hereditaments." That he thought was directly contrary to the decisions of the Superior Courts in the case of Laing and in the Tyne Boiler case, because there it was held that all machinery which was essentially necessary and intended permanently to remain for the purpose of carrying on a particular business should be taken into account. Of course the question of the rateability of machinery was not in dispute, for the promoters of this Bill were asking to have the law amended and machinery omitted from rateability. The effect of this Bill, if it became law, would in a large number of manufacturing districts in England and Wales be very serious. Large sums of money had been borrowed by local and other authorities on the security of the rates in places where the rateable value of machinery had been included. If that machinery were relieved from rateability, the whole burden would be cast upon other ratepayers, such as the farmers, householders, and others.

Mr. Charles F. Jones (Fellow) said that Mr. Ryde's Paper put the case very clearly before them, and enabled the younger Members to understand the effect of the Bill. It seemed to him that the preamble was incapable of proof. The first words were "Whereas questions have from time "to time arisen as to how far machinery is to be taken into "consideration, &c." Now, those questions had arisen not from the uncertainty of the law, but from the fact that persons interested desired to alter the law. The latter was as clearly defined as it could well be. Ever since the Gloucester case (decided in 1873) all the judgments had been in the same strain, excepting, perhaps, the Halstead loom case in 1867, which, no doubt, occasioned a little variation (though subsequent decisions had overruled the latter case), and by the decisions in the Bishopwearmouth and the Tyne Boiler Works cases the law was absolutely settled, unless Parliament should ever alter the law so as to upset the effect of those decisions. If, then, the law was so clear that it did not require alteration, he could not see how the words of the preamble of the Bill, "It is expedient to amend the law," could stand. He could quite conceive that certain individuals might consider it expedient to amend the law for the purpose of a particular trade or manufacture, but they had to consider this matter not from a personal but from a public point of view, it being a matter in which nearly every ratepayer was concerned. As Mr. Hedley had very justly observed, large sums of money had been borrowed upon the rates from time to time, and there was not the slightest doubt that those who had lent their money had done so on security of existing and future rateable property. The Bill would have the effect of reducing the amount of rateable property very much indeed, and particularly in large centres of industry, where machinery is largely used, the burden would

have to be borne by others in a greater proportion of the rates. In the case of Swansea for instance, where very large sums had been borrowed, and where the rateable value of the large works was very considerable, the corporation stock now stands at about 108; but he ventured to think that, if this Bill were brought into operation, the effect would be to decrease its value. He could not help thinking that those gentlemen who had failed in getting the Courts to adopt their views now wished to go to Parliament and ask them to override what the Courts of law had settled. Looking at the Bill as impartially as he could, and from a public point of view, he failed to see a single good reason that could be put forward in its favour; but he could see very many against it. First, machinery was a labour-saving appliance. If so, then the cost of production was lessened, the profits were greater, and if the profits were greater the ability to pay the rates was also greater. The next objection seemed to him to be that diminution of manual labour was brought about by the introduction of machinery, which led to the emigration of the surplus able-bodied, thus throwing the support of the aged and infirm on the rates, increasing the number of unoccupied houses, and leading to an increase in the rates in very many large places where occupiers of houses and others shared these burdens in undue proportion. Why then should those who were the means of bringing about this state of things ask for special legislation in their favour? It seemed to him that the proposers and supporters of this Bill ought to be satisfied with the favour they already possess through the exemption of personal property from rating, including stock-in-trade (did time permit he could show the enormous advantage they enjoy under this exempting Act), and not wish to go further and say that their property should be exempt with regard to a large

portion of the machinery. Another point was that the use of machinery increased the cost of maintaining the roads in the neighbourhood of the works. The doctrine had lately been put forward, and he thought very reasonably, that those who used the roads should maintain them. That being so, he did not think they ought to exempt owners of machinery from rating, seeing that they were the means of cutting up the roads very considerably. He submitted, too, that the passing of this Bill would create a very objectionable inequality in rating which it was or should be always one of the first aims of the rating authorities to get rid of.

Again, he contended that it was against public policy and the tendency of the present day to *narrow* the incidence of taxation. The tendency was rather the other way—witness the Act of 1874, which enlarged the incidence of taxation. A further objection was that this would be legislation in favour of a particular class of persons to the injury of others, which was surely against public policy. He could not help thinking that the measure would be more correctly described as "a Bill to create confusion where none existed "and to relieve the pockets of the few, at the expense of the "many." On all these grounds he thought that the Bill ought to be rejected.

Mr. F. Marshall (Associate) thought that two things had already appeared from the discussion which had taken place. First, although the subject has been long debated, there had resulted no such development of matured opinion as had enabled the promoters of the movement to bring forward a sound and intelligible Bill upon the subject. The second was that the Bill before Parliament was of the crudest possible nature. He need hardly refer to the particular wording of passages in the Bill, but when it was

mentioned that two sections were taken almost bodily from the Bills of Sale Act, 1878, one could readily understand how very little trouble had been taken in preparing a Bill of such importance as this, for it must be evident that what was required for an Act of that character was a wholly different thing from what was necessary as a test of rateability in regard to machinery.

Then at the outset this question arose, "What is the "machinery proposed to be exempted?" "Machinery" was, no doubt, a word of very wide meaning, and would be one of the first things that must be defined. He thought the use of the word without any definition at all, only showed how little care had been expended in preparing a Bill intended to produce so radical a change. Then in Section II. this startling proposal was made—"No machinery, "whether attached to the tenement or premises or not, shall "be taken into consideration in estimating such rateable "value." Now, when, as it appeared to him, the very test of rateability had, roughly speaking, been the attachment to the soil—as that stood at the very root of the law upon the subject—it did startle one to find that section. One hardly knew how far that would ramify. Some railway companies might be bold enough to suggest that the very rails and sleepers on the roads should not be rated, as had been already suggested in the well-known Melksham case. Then the Courts had no difficulty in overruling it, but, supported by this Bill, that claim might well be renewed.

No doubt the decisions had gone a very long way in including whatever had been attached to the freehold, even if it were only attached for the purpose of steadying it, and the owners of large works had found their expensive machinery had been included, apparently in consequence of such attachment, but perhaps more accurately because it

was put there with the intention of being permanently used, and gave a character to the house or shop where it was placed. That had appeared, not, perhaps, without reason, to be a grievance, and great efforts had therefore been made first by the railway companies, and then by the promoters of this Bill, to relieve themselves from that grievance.

He took it there was very little doubt that the Bill, though rejected this year, would be brought forward in years to come, and probably in a much more elaborate form, but the question must be dealt with on a broader basis than was now proposed.

Mr. Bradshaw Brown (Fellow) thanked Mr. Ryde for having compressed the case so judiciously and wisely that the Members had been able, in a very short time, to get his valuable opinion. He felt it rather a presumption, as a young Member, to say that he should rejoice if this Bill passed, even in its present crude state. His business had been for many years in a large manufacturing district in London, where the rating of machinery had been the curse of manufacturers. He could not agree with Mr. Eve that it was not a tax upon industry, but was simply a rating of the value of the hereditament, because the value of the hereditament was enhanced by reason of the machinery being upon the premises. He thought it did not enhance the value, and if he had a factory filled with engines and other valuable machinery, it was of no increased value if it were unlet to-morrow. He knew of a large shipbuilding yard that had been filled with valuable machinery, which was sold by auction, and the premises were now occupied by an electrical storage company—a totally different business—and the premises were rented and were rated, with the exception of the machinery, at the same value. He thought

the Halstead Mills case seemed rather to have anticipated this Act of 1888, because it seemed clear there that nothing was to be rated but the motive power. He submitted that there was no difference for the purposes of rating between a silk-throwing machine and a punching and shearing press, and why one should be rated and not the other he could not conceive.

As to this difference between the North and South, his experience was that engineers who were interested in premises at the North and at the South were the loudest in their complaints when they came South and found their machinery heavily rated, always stating that no machinery was rated in the North except motive power. It seemed to him that the difference between machinery and power need not be discussed there, for this Act laid down very clearly what *was* to be rated, and it did not matter much what was *not* to be rated. What was to be rated was the motive power and the appurtenances attached, and that ought to be sufficient to carry out the Act with justice and equity. In the case of self-contained machines having their own cylinders, the machine was not an appurtenance of the engine—the engine was an appurtenance of the machine. These questions might well be defined under the Bills of Sale Act, which controls mortgages, and nothing more was necessary than to let this Act for the rating of machinery run upon the same lines as the Bills of Sale Act. The rating of machinery was really the rating of a man's industry, and it might as well be proposed to rate the drawing boards in an architect's office as the machines in an engineer's shop.

The gas and water companies held a somewhat different position. They seemed always to be "fair game" for rating purposes because they were very profitable. The

cases which had been cited showed that there had been many years of litigation on the subject, which had produced a great deal of ill-feeling not only between rating surveyors, but between the local authorities and the rate-payers. If this Bill passed these questions would be settled without further litigation.

Mr. Ryde, in reply, said that he had already explained his feeling of the difficulty of the task set him; he had had to write a Paper which could be discussed and disposed of in one evening, in which short time he could not, of course, exhaust the whole subject. He had mentioned the case of the Halstead Works. It was many years since he made that valuation, but he considered that that case showed what class of machinery was not to be taken into account. It was not a question, as Mr. Eve had put it, whether it was to be rated or not. The machinery was not to be rated, as he might point out for the guidance and assistance of the younger Members of the Institution. What was really rated was the land.

There were some exceptions to that—tithe rent-charge, for instance. Tithe rent-charge was rateable, and he admitted that there was in that case no land to rate. But as a rule, with a very few exceptions, what was rated was the land, enhanced in value by what stood upon it. It was true that the Act of Elizabeth used the word "house," but the house only went to enhance the value of the land, so that the rating of a house was the rating of a piece of land with a house standing upon it. That land was in most cases worth more with the house standing on it than before the house was built. Therefore the erection of the house went to the enhancement of the value of the land. Now, for certain purposes land with a house on it, and with some-

thing in the house, was more valuable than the land and house with nothing in the house, and that was what had to be considered. That was the machinery, plant fixtures, or whatever else went to the enhancement of the value of the rateable hereditament.

Mr. Eve had spoken of the Crystal Palace. If he were asked if that piece of land at Sydenham was worth more per annum with the Crystal Palace or without it, he would, in all probability, say it was worth more with the Crystal Palace upon it than if it were only land, and with the great organ affixed thereto he would say that it was more valuable still. That was the only way to consider the organ as a question of rateable value. It was not that the organ was valuable, it was that the Crystal Palace with that magnificent organ as a fixture would be worth more than without it. It had a higher rateable value, and to that extent the organ increased the rateable value of the Crystal Palace. He hoped he had made himself understood. It was a matter with which he had been familiar for many years, and he would advise the younger Members of the Institution to study the question well.

He could not quite agree with the last speaker in thinking that, though this was an ill-considered measure, it ought to go through, although there would doubtless be a great deal more rating business if it did so. But what would be the effect on those agricultural districts where there were manufacturing premises? The agricultural land must bear an increase of taxation. If a measure were passed relieving manufacturers, rates must fall on some other class of property. He hoped he had put this sufficiently plainly in his Paper to show that, at all events in the opinion of some Members of this Institution, this was a Bill which ought not to go any further—that it was a Bill which was ill-considered and

badly drawn (or rather sketched), and a Bill which ought not to pass; and his object was accomplished if he had made that clear.

The vote of thanks having been put and carried unanimously, the Meeting then adjourned.

THE ANNUAL GENERAL MEETING,

Monday, May 28th, 1888.

WILLIAM JAMES BEADEL, M.P. (PRESIDENT), in the Chair.

Messrs. H. S. FENNING and P. E. PILDITCH having been requested to act as Scrutineers of the ballot for the Election of Council, the balloting list submitted by the Council in accordance with the By-Laws and the record of attendance of the Members of Council were read, and the ballot declared open.

The Report of the Council on the state of the Institution and the Statement of Receipts and Expenditure for the year 1888 were read.

RESOLVED—"That the Report of the Council and the Balance Sheet be received and approved, and be printed and circulated with the 'Transactions.'"

RESOLVED—"That the thanks of the Institution be given to Messrs. A. GARRARD and G. TAYLOR for the efficient performance of their duties as Auditors."

RESOLVED—"That the thanks of the Institution are due and be given to the President, the Vice-Presidents, and the other Members and Associates of Council, for the able manner in which they have administered the affairs of the Institution."

RESOLVED—"That the thanks of the Institution be given to Mr. JOHN WORNHAM PENFOLD (the Honorary Secretary), to Mr. JULIAN C. ROGERS (the Secretary), and other officers of the Institution, for the able manner in which they have executed their several duties."

The President presented the following prizes won by Candidates in the Professional Examinations 1888:—

THE INSTITUTION PRIZE OF THE VALUE OF £15 15*s.*

To Heber Gambling Martin, placed first in the Students' Proficiency Examination, 1888.

THE SPECIAL PRIZE OF THE VALUE OF £10 10*s.*

To Francis Edward Dixon, placed second in the Students' Proficiency Examination 1888.

To Frederick Herbert Jones, bracketed equal for the Second Student Prize, but disqualified by age from competing, a Consolation Prize of £5 5*s.* presented by the retiring President, Mr. W. J. Beadel, M.P.

THE DRIVER PRIZE OF THE VALUE OF £15 15*s.*

To Frank William Smith, placed first in the Examination (1888) for Non-Student Candidates for the Class of Professional Associates.

The ballot having been closed, the Scrutineers reported that the following gentlemen had been elected as

COUNCIL FOR THE ENSUING YEAR.

President.

ELIAS PITTS SQUAREY.

Vice-Presidents.

ROBERT COLLIER DRIVER
FRANCIS VIGERS
CHARLES JOHN SHOPPEE
THOMAS CHATFEILD CLARKE

Members of Council.

DANIEL WATNEY
JAMES MARTIN
HENRY JAMES CASTLE
ROBERT LAKE COBB
ALEXANDER MILNE DUNLOP
CHRISTOPHER OAKLEY
ROBERT VIGERS
THOMAS MILLER RICKMAN
ROBERT GEORGE CLUTTON
JOHN SHAW
ARTHUR GARRARD.

Professional Associate of Council.

EDWARD SMYTH.

Associates of Council.

JOHN WOLFE BARRY.
SIR RICHARD EVERARD WEBSTER, Q.C., M.P.

RESOLVED—"That the thanks of the Meeting be given to Messrs. H. S. FENNING and P. E. PILDITCH for their services as Scrutineers."

A vote of thanks to THE PRESIDENT for his conduct in the Chair having been passed unanimously, the Meeting separated.

THE TWENTIETH

ANNUAL REPORT OF THE COUNCIL.

Annual General Meeting, May 28th, 1888.

The present Report marks the close of the second decade of the Institution's existence. The whole period has been one of great prosperity and continuous growth, a result which would have been impossible but for the cordial support which the Council have invariably received from the Members in their efforts to direct the development of the Institution along the path of practical usefulness.

There have been elected, since May 1887, 55 Fellows, 32 Professional Associates, 7 Associates, and 42 Students, or 136 in all. On the other hand, there have died 2 Honorary Members, 9 Fellows, and 1 Professional Associate; while 9 Fellows, 8 Professional Associates, and 6 Associates have ceased to be Members, and 28 Students have either passed by Examination into the Professional Associate class, or (their studentship having expired) have been struck off the roll.

The Council record with the deepest regret the loss of two valued colleagues during the year—Mr. Edward I'Anson in January last, and Mr. Thomas Smith Woolley during the present month. Both Mr. I'Anson and Mr. Woolley were among the founder Members of the Institution. Both of them rendered it long and valuable services as Ordinary Members of Council, later in the office of Vice-President and President, and still later as *ex-officio* Members of the Council after the close of their respective years of office.

Both laboured to maintain the best traditions of the profession, and both have left lasting evidences of their knowledge and ability in the pages of the "Transactions," and enduring memories of their high character in the remembrance of all who knew them.

Full details are given of the financial position of the Institution in the Statement of Accounts which accompanies this Report. The three principal sources of Revenue—viz., Subscriptions, Hire of Arbitration Rooms, and Dividends—have yielded together a substantial increase over the Receipts under the same heads for last year. This increase would have been larger except for a further diminution in the amount received for the Hire of the Arbitration Rooms, which has probably now reached a point at which it may be expected to remain until the long-deferred revival of public enterprise takes place.

The Expenditure, on the other hand, shows a considerable increase, but not more than is commensurate with the growth of the Institution and with the necessary swelling of establishment-charges, together with the larger expenses attending the expansion of the Examination system, and the cost of the new Publication, "Professional Notes." Notwithstanding this larger expenditure, the Council were able to defray the cost of acquiring the lease of the new premises, No. 13A, Great George Street, and the law charges involved, out of available cash-balances, without disturbing the Institution investments.

It will be observed that the net Expenditure during the year on the new Publication amounted to the considerable sum of £200; but the Council have received many assurances from the Members that the money has been satisfactorily and usefully employed.

The Balance Sheet for the year ending the 31st December, 1887, shows the following results:—

Receipts.	£	s.	d.
Total Revenue . .	3,913	12	4
Transferred from Capital	150	0	0
Revenue Balance in hand, January 1st, 1887	240	12	10
Entrance Fees carried to Capital Account . . .	406	7	0
Interest	8	16	6
Transferred from Revenue . . .	1,000	0	0
Capital Balance in hand, January 1st, 1887	342	14	1
	£6,062	2	9

Expenditure.	£	s.	d.
Total Payments out of Revenue — Current Expenses . . .	4,100	10	2
Examinations . .	146	16	5
Revenue Balance in hand, December 31st, 1887 . . .	56	18	7
Total Payments out of Capital — Purchase of Lease, 13A, Great George Street	1,300	0	0
Furniture and Fittings	29	8	0
Transferred to Revenue	150	0	0
Capital Balance in hand, December 31st, 1887 . . .	278	9	7
	£6,062	2	9

The Institution investments stood at Christmas 1887 as follows:—£2,541 9*s.* 6*d.*, Consols, on Revenue Account; £7,471 4*s.* 10*d.*, New 2½ per Cents., on Capital Account; £539 11*s.* 2*d.*, Reduced 3 per Cents., on Library Account; and £228, North British Railway Preference Stock, on account of the Crawter Bequest.

A summary of the Receipts and Expenditure for the year 1888, up to the present date, shows the following results:—

Receipts.	£	s.	d.
Total Revenue . .	3,069	6	3
Revenue Balance in hand, January 1st, 1888	16	18	7
Entrance Fees . .	243	12	0
Interest	4	8	6
Capital Balance in hand, January 1st, 1888	278	9	7
	£3,612	14	11

Expenditure.	£	s.	d.
Payments out of Revenue—Current Expenses . . .	1423	3	0
Examinations . .	107	3	1
Placed on Deposit Account at Bankers	1500	0	0
Revenue Balance in hand, May 28th, 1888	55	18	10
Capital Balance in hand, May 28th, 1888	526	10	1
	£3,612	14	10

The total liabilities at the present date do not exceed £100.

The Council having signified their assent to the conversion of the sum of £2,541 9*s.* 6*d.* Consols, invested on Revenue Account, and the sum of £539 11*s.* 2d. Reduced 3 per Cents., invested on Library Account, into the New Government 2¾ per Cents. Stock, the Corporation Investments stand as follows:—£2,541 9*s.* 6*d.*, in New 2¾ per Cents. Stock, on Revenue Account; £539 11*s.* 2*d.*, in the same Stock, on Library Account; £7,471 4*s.* 10*d.*, in New 2½ per Cents., on Capital Account; and £228, in North British Railway Preference Stock, on account of the Crawter Bequest.

The Institution having acquired empty possession of 13A, Great George Street, at Lady-Day last, plans for adapting it for use in conjunction with the present premises were prepared by the Building Committee and approved by the Council, and a contract has been entered into for carrying out the necessary work for the sum of £353 10*s.* The new building will afford accommodation much needed for the clerical staff of the Institution, will provide another Consultation Room adjoining the Lecture Hall, and will meet an urgent want of additional storage accommodation. As was pointed out in a previous Report, it will also make part provision for an enlargement of the Lecture Hall which will become necessary at no very distant date.

The Council have been impressed for some time past with the desirability of further stimulating the interest of the country Members in the welfare and development of the Institution. Circumstances of distance and inability, from various causes, to attend the Meetings and take part in the business of the Institution seemed to point to the desirability of introducing some form of local organisation sufficient to bring the Members in all parts of England into more direct relations with the Council. The Council accordingly appointed a large Committee of its Members, in which several of the Past-Presidents were included, to advise as to the steps

to be taken to secure the objects in view. After prolonged and careful consideration, the Committee reported in October last recommending the grouping of the country Fellows into Provincial Committees, as far as possible on a county basis; each Committee to elect its own Chairman, to come by virtue of his office upon one of the executive Committees of the Institution. They also recommended that every application for membership should be submitted to and reported on by the Committee of the district from which it emanates before being considered by the Council—an arrangement which, they pointed out, would operate as an additional safeguard against the admission of unqualified persons.

After careful consideration the Council adopted, in the main, the scheme of the Committee, but determined, before committing themselves to its general introduction, to test its operation in a tentative way in 6 widely-separated districts.

The districts selected were—

1. Kent.
2. Devon and Cornwall (combined).
3. Norfolk and Suffolk (combined).
4. Somerset and Dorset with Bristol (combined).
5. Northumberland, Cumberland, Westmoreland, and Durham (combined).
6. Leicestershire, Northampton, and Rutland (combined).

Inaugural Meetings have already been held in 5 out of the 6 districts above enumerated with results of the most encouraging description. The Chairmen elected are for—

District 1. Mr. George Langridge.
„ 2. Mr. John Drew.
„ 4. Mr. J. E. Knollys.
„ 5. Mr. Jacob Wilson.
„ 6. Mr. J. F. L. Rolleston.

The results of the Meeting in the 3rd District have not yet reached the Council.

The new arrangements have been received with great satisfaction by the Members in the various Districts, and will be extended to other parts of England should experience seem to justify the step. It only remains to add that the utmost care has been taken to give these arrangements a character purely ancillary to the existing Constitution and By-Laws of the Institution, and that the Council hope and believe they will have the effect of greatly strengthening and consolidating the Institution throughout the Provinces, and especially in the more distant Counties.

The results of the Examination system, so vital to the future of the Institution, are of a most encouraging description. At the Preliminary Examination in January last, 48 Candidates offered themselves, as compared with 53 Candidates in 1887. Of these, 39 passed—the same number as last year. For the Professional Examinations, held on the 23rd to the 27th of April, 73 Candidates presented themselves, of whom 52 passed and 21 failed, 1 Candidate retiring during the progress of the Examination.

Owing to the large number of Candidates on this occasion, it was found impossible to hold the Examinations, as heretofore, in the rooms of the Institution, and the Council therefore hired for the purpose the second-floor room of the Medical Examination Hall on the Thames Embankment, with the the result of greatly simplifying the work of supervision and control over arrangements necessarily of a very intricate character.

The following Table shows the comparative results of the Examinations for the eight years since their establishment, and will afford interesting evidence of the extent to which the system is permeating the rising generation :—

Year.	Preliminary Examinations.		Professional Examinations.	
	Candidates.	Passed.	Candidates.	Passed.
1881	13	6	2	1
1882	30	17	0	—
1883	44	22	25	22
1884	51	30	36	23
1885	46	37	43	31
1886	46	34	56	38
1887	53	39	58	45
1888	48	39	73	52
TOTALS	331	224	293	212

Out of the 73 Candidates in the recent Professional Examinations, 38 were drawn from the Metropolitan districts, and 35 from the Provinces.

An analysis of the results shows that the 73 Candidates of all classes obtained among them 56·26 per cent. of the possible marks.

The 33 Student Candidates for the Associateship obtained among them 18,853 out of a possible 33,000 marks, or 57·13 per cent.; the 32 non-student Candidates for the Associateship 21,645, out of a possible 37,550, or 56·35 per cent.; and the 8 Fellowship Candidates 4,283 marks, out of a possible 8,000, or 53·50 per cent.

The 23 Land-Agency Candidates obtained among them 15,013 marks out of a possible 25,400, or 59·10 per cent.; the 31 Valuation Candidates 17,318 marks out of a possible 32,350, or 53·53 per cent.; and the 19 Building Candidates 12,450 marks out of a possible 20,800, or 59·75 per cent.

The highest marks obtained by any Student Candidate were 749 out of a possible 1,000; by any non-Student Candidate 967 out of a possible 1,200; and by any Fellowship Candidate 653 out of a possible 1,000.

The Institution Prize of £15 15*s.* was won by a Student Candidate, in the Valuation Section, with 749 marks out of a possible 1,000. The Second Prize (£10 10*s.*) was won by a Student Candidate, in the Land-Agency Section, with 728 marks out of a possible 1,000. The Driver Prize of £15 15*s.* by a non-Student Candidate, in the Building Section, with the large aggregate of 967 marks out of a possible 1,200.

It is impossible to estimate too highly the services of the gentlemen who have acted as Honorary Examiners—many of them since the first introduction of the Examination system. The following figures, however, will afford some idea of the enormous labour involved. Twenty-six Examiners, of whom 17 acted in a purely honorary capacity, set among them 49 papers comprising a total of about 400 questions, and involving the adjudication of the marks to between 5,000 and 6,000 answers.

There have been 42 Meetings of the Council and the Council Committees since the date of the last Report.

The Library now comprises nearly 4,000 volumes, and contains a very large number of valuable text-books and works of reference.

The volume of "Transactions" for the current Session is not unworthy of its predecessors.

The Council have carefully watched the course of various Bills affecting the interest of property, in their passage through Parliament, and in more than one instance there is reason to believe that their representations have not been without effect in modifying or determining the results as regards several Bills. Among them may be mentioned the Bill for establishing a so-called General Council of Architectural, Civil Engineering, and Surveying Education and Registration which was withdrawn by its promoters after a very brief discussion in the House of Commons.

Finally, the Council tender the Members their cordial thanks for the support they have received from them during the year.

Dr. STATEMENT OF RECEIPTS AND EXPEND

RECEIPTS.

1887.	£ s. d.	£ s. d.	£
688 Fellows' Subscriptions for 1887, at £3 3s.	2,167 4 0		
8 " " in advance for 1888, at £3 3s.	25 4 0		
4 " " arrears at £3 3s.	12 12 0		
		2,205 0 0	
357 Professional Associates' and Associates' Subscriptions for 1887, at £2 2s.	749 14 0		
2 Professional Associates' Subscriptions in advance for 1888, at £2 2s.	4 4 0		
6 Professional Associates' and Associates' Arrears at £2 2s.	12 12 0		
1 " " part paid	1 1 0		
		767 11 0	
97 Students' Subscriptions for 1887 at £1 1s.	101 17 0		
3 " " in advance for 1888, at £1 1s.	3 3 0		
		105 0 0	
			3,07
Hire of Arbitration Rooms			44
Rent received from No. 13A, Great George Street			14
Dividends			25
Transferred from Capital			15
Cash at Bankers and in hands of Secretary, January 1st, 1887			24
			£4,304

CAPIT

	£ s. d.	£ s. d.	£
39 New Fellows' Entrance Fees for 1887, at £5 5s.	199 10 0		
22 Fellows' Entrance Fees, Balance on Transfer, at £2 2s.	46 4 0		
		245 14 0	
51 New Professional Associates' and Associates' Entrance Fees for 1887, at £3 3s.		160 13 0	
			406
Interest on £228 North British Railway Preference Stock (Crawter Bequest)			8
Transferred from Revenue			1,000
Balance at Bankers, January 1st, 1887			342
			£1,757

LIBRA

	£
Donations to December 31st, 1887	51
Dividends	15
Balance at Bankers, January 1st, 1887	7
	£75

SU

	£
Revenue Account	4,304
Capital "	1,757
Library "	75
	£6,137

ASSETS AN

	£ s. d.	£
Cash at Bankers and in hands of Secretary		399
Value of Furniture and Books		3,967
Investments—Consols	2,541 9 6	
" New 2½ per Cents.	7,471 4 10	
" Reduced 3 per Cents.	539 11 2	
" North British Railway Preference Stock	228 0 0	
		10,780
Subscriptions and Entrance Fees due, but unpaid at date		231
Fees for use of Rooms due, but unpaid at date		157
Value of Premises, Nos. 12 & 13A, Great George Street		7,200
		£22,735

INSTITUTION.

IE YEAR ENDING DECEMBER 31ST, 1887. Cr.

COUNT.

EXPENDITURE.

37.	£ s. d.	£ s. d.
- - - - - - - - - - - - - - - -	346 17 4	
nce, Rates, and Taxes - - - - - - - - - - - - - -	226 5 9	
Light, and Water - - - - - - - - - - - - - -	113 12 2	
		686 15 3
's -		69 17 11
nery, Postage, and Receipt Stamps, Books of Account, Publications, &c. - - - -		236 0 1
ps and Wages - - - - - - - - - - - - - - - -		1,167 10 0
hold Effects, Housekeeper's Petty Cash Expenses, Tea, Coffee, and Sundry Disbursements		117 5 11
composition Fee, proportion refunded on transfer - - - - - - - - - -		15 15 0
inations—Examiners' Fees - - - - - - - - £82 19 0		
Printing, Lithography, Hire of Instruments, and Sundry Disbursements - - - - - - 94 10 8		
Advertisements - - - - - - - - 13 1 0		
190 10 8		
Less Candidates' Fees forfeited, £58 16s., and Sale of Examination Rules, £10 9s. 3d. - - 69 5 8		
	121 5 0	
Prizes - - - - - - - - - - - - - -	25 11 0	
		146 16 5
ation of "Transactions"—Printing and Lithography - - - - - -	301 0 0	
Covers and Binding - - - - - -	49 9 1	
Reporting - - - - - - - - -	40 19 0	
	391 8 1	
Less Sale of "Transactions" and Covers - -	42 15 3	
		348 12 10
cation of "Professional Notes"—Printing and Lithography- - - -	209 9 0	
Less Sale of "Professional Notes" - - -	8 10 0	
		200 19 0
ferred to Capital - - - - - - - - - - - - - - - -		1,000 0 0
al Printing - - - - - - - - - - - - - - - -		110 14 6
Charges - - - - - - - - - - - - - - - - - -		146 19 8
at Bankers and in hands of Secretary, December 31st, 1887 - - - - - - -		56 18 7
		£4,304 5 2

COUNT.

	£ s. d.
ase of Furniture and Fittings - - - - - - - - - - - - - - -	29 8 0
ase of Lease, 13A, Great George Street - - - - - - - - - - - -	1,300 0 0
ferred to Revenue - - - - - - - - - - - - - - - -	150 0 0
ce at Bankers, December 31st, 1887 - - - - - - - - - - - - -	278 9 7
	£1,757 17 7

COUNT.

	£ s. d.
ase of Books, Maps, &c. - - - - - - - - - - - - - - -	11 1 8
ce at Bankers, December 31st, 1887 - - - - - - - - - - - - -	64 0 9
	£75 2 5

ARY.

	£ s. d.
nue -	4,247 6 7
al -	1,479 8 0
ary -	11 1 8
nces at Bankers and in hands of Secretary, December 31st, 1887 - - - - - - -	399 8 11
	£6,137 5 2

ABILITIES.

	£ s. d.
Quarter's Rent to Christmas 1887 - - - - - - - - - - - - - -	96 5 0
Housekeeping, Printing, and various Accounts - - - - - - - - - - -	176 5 0
nce -	22,462 11 7
	£22,735 1 7

Examined with the Books and Vouchers, and found correct,
ARTHUR GARRARD,
G. TAYLOR, } *Auditors.*

APPENDIX TO VOL. XX.

Obituary.

JOHN COLEMAN (Fellow) was born at Wandsworth, and was the son of the late Mr. Robert Coleman, of Lloyd's. He had a large experience, both as a land-agent and also as a practical farmer. He was educated at the College at Cirencester, and took a diploma there. He afterwards managed estates in Berkshire, Surrey, and Northamptonshire belonging to Mr. Drummond, the Earl Cadogan, and Sir George Jenkinson, Bart. Twenty-two years ago he became Agent of the Yorkshire Estates of Lord Wenlock, and resided for over eighteen years of that period at Riccal Hall. In 1876 he was sent out, to represent the Government, to the Centennial Exhibition at Philadelphia as one of the Judges of Machinery, of which group he was Chairman, and during his stay in America he studied the agricultural system of the United States. In 1879 the Duke of Richmond appointed him Assistant Commissioner for the seven northern counties of England—Yorkshire, Northumberland, Durham, Cumberland, Westmoreland, Lancashire, and Cheshire. The inquiry extended from the autumn of 1879 until shortly before the date of the Duke of Richmond's Commission Report, in the spring of 1882. In March 1886 he gave evidence before the Royal Commission on Depression of Trade and Industry, and his evidence, which was very valuable, occupies over twenty-three columns of the Blue Book. He came to reside at Hollycroft, Fulford Road, York, in 1883. On retiring

from the management of Lord Wenlock's Estates in 1885 he started as a Land-Agent and Valuer in Blake Street, and was very successful in business. At the time of his decease he was Land-Agent for Lady Ashtown (of Parlington, Yorkshire) and several other landowners. He was not only a practical farmer, but a scientific agriculturist, and there are few men who did more for the advancement of this great industry. He was Agricultural Editor for the *Field*, and published several works on Agriculture, two of which, "Cattle of Great Britain" and "Sheep and Pigs of Great Britain," were lately brought out in a new edition by Chambers. He was a frequent contributor of Papers to he Farmers' Club, the York Chamber of Agriculture, and other agricultural societies. He was a Member of the Royal Agricultural Society, the Central Chamber of Agriculture, the Yorkshire Agricultural Society, and a Professor at Cirencester College. He was one of the Judges of Implements at the Royal Show at Newcastle-on-Tyne.

Mr. Coleman was elected a Fellow of the Institution on January 30th, 1882. He died at York on Sunday, February 19th, aged 57 years.

MARIE AUGUSTE LOUIS DERIVRY (Honorary Member) died at Noyon, on Monday, the 30th of April, 1888. M. Derivry was one of the most eminent members of his profession in France. He was connected with the Comité Central des Géomètres from its establishment in 1847, and rendered the Association the most distinguished services in connection with the "Journal des Géomètres," of which he was editor from 1851 to the time of his death—a period of 37 years. M. Derivry was a profound mathematician and a man of large general erudition. He is described in a glowing panegyric by his colleague, M. Gillett, as a man "devoted, sagacious, affable, and generous, always ready

" with help and counsel, and possessed of exquisite tact and " discretion." During the visit of the Deputation from the Surveyors' Institution to the Congress of Surveyors, held in Paris on the occasion of the International Exhibition of 1878, M. Derivry was untiring in his exertions to make the gathering agreeable to the foreign visitors. On the return of the Deputation, the Institution marked its sense of his courtesy and of his distinguished professional position, by electing him an Honorary Member together with his colleagues M. Lefevre de Sucy, the then President, and M. Bucaille, the Vice-President, of the Société de Géomètres.

ARTHUR HARLAND (Professional Associate) was appointed in 1872 to the Architect's Department of the School Board for London, which he left in 1875 to take a post in that of the Great Northern Railway Company, but returned to the School Board in 1877. Mr. Harland had a large experience in the preparation of Plans for School and Railway Buildings, and was held in high esteem for his honourable character, industry, and steady attention to duty. His death took place on the 27th October, 1887, in the 35th year of his age.

EDWARD I'ANSON (Past-President) was the eldest son of an architect and surveyor of the same name, and was born in London, at Laurence Pountney Hill, on July 25th, 1812. His father was largely employed as a surveyor to estates in London and Southwark, and was first assistant to, and afterwards a partner with, Mr. David Alexander, who enjoyed, at one time, an extensive architectural practice in the City of London. He relinquished active practice about the year 1842.

His son, Edward I'Anson, the subject of this memoir,

was educated at Merchant Taylors' School and in France at the College Henri Quatre, and at an early age was articled to his father, and afterwards passed some time in the office of Mr. John Wallen, who was at that time the principal quantity-surveyor in the City, it being the practice in those days for young men to put themselves under Mr. Wallen for the purpose of acquiring a knowledge of taking out quantities.

On the completion of his education Mr. I'Anson made an extensive tour in France, Germany, Italy, Greece, and Turkey, and returned home in 1837. He immediately after entered into practice, and, besides assisting his father in his surveying business, soon acquired an independent connection as an architect, his bent being decidedly towards the artistic side of his profession.

At that time the construction of buildings to be used exclusively as offices was in its infancy, and Sir Francis Moon appears to have been one of the first to perceive the advantages that might be derived from the erection of buildings of this character. Some few isolated buildings of this kind appear to have been erected, including one at the Lombard Street end of Clement's Lane by Mr. Voysey about 1823, but they attracted no attention; and until the improvements in connection with the approaches to London Bridge and the rebuilding of the Royal Exchange began to be effected, very little had been done to provide offices suitable for the changed conditions of social life and the expansion of commerce. "There were in the City of London in my recollection, some thirty years ago," to quote from a Paper read by Mr. I'Anson before the Institute of Architects in 1864, "certain houses let out in separate floors and used as offices; but these were few, and it is quite within my remembrance when merchants dwelt in the City over their counting-houses, and next to their warehouses, going to their

country houses at Edmonton, Tottenham, and Hackney, when there was scarcely any practicable outlet over the river to the southward; and when the coaches and wagons from Kent put up in the High Street of the Borough of Southwark where the great inns with the open galleries round them then existed, and where, indeed, some still remain, but are now converted to other uses. In those days buildings erected expressly for use as offices were unknown."

Mr. I'Anson was the first to use white glazed tiles for the lining of the walls of internal areas, having employed them for that purpose at the Royal Exchange buildings, at the suggestion, as he stated with characteristic modesty, of his client, Sir Francis Moon. He built Colonial Chambers, Fenchurch Street; a large block of offices in Mincing Lane, Corn Exchange Chambers in Seething Lane, and others, and at one time appeared to have a monoply of this description of building, in which, however, he was subsequently outdone by others who profited by his experience of other buildings erected by him. The most important were the British and Foreign Bible Society's House, Queen Victoria Street; the Corn Exchange, Mark Lane; the Library and Medical School at St. Bartholomew's Hospital, and a New Court Room and Library for the Merchant Taylors' Company.

Mr. I'Anson was for many years Surveyor to the Merchant Taylors' Company, for whom he carried out a large amount of work, and also to St. Bartholomew's Hospital. He was besides District Surveyor for Clapham and part of Battersea, which appointment he held from 1844 to the close of his life. He also held numerous other minor appointments as Surveyor. He was a Justice of the Peace for the County of Surrey, and a Fellow of the Geological Society.*

If not invidious to say so, Mr. I'Anson possessed in a somewhat unusual degree the combination of the artistic

* Reprinted to this point from "The Builder."

with the practical temperament. It was, of course, in respect of the latter that he was connected with this Institution. As an eminent Surveyor his assistance was sought when the establishment of the Institution was first mooted in the year 1868, and his name appears accordingly among the founder Members. But, though evincing from the first great interest in the progress of the Institution, it was not until the election of May 1876 that he came upon the Council. Two years later he was nominated and elected a Vice-President to fill the vacancy caused by the retirement of Mr. John Oakley, whose advanced age and failing health compelled him to relinquish office. From this time onward Mr. I'Anson's relations with the Institution were of the most close and cordial description. His cultivated mind discerned at once the powerful educational stimulus likely to result from the introduction of the Examination System, and when appointed a Member of the Professional Education Committee in July 1880 he evinced the keenest interest in the elaboration of the work. His sympathies, indeed, were always in instinctive alliance with culture and knowledge. This is illustrated in his various contributions to the "Transactions" of the Institution. The first and most important of these was a Paper on "London: its Commercial Centres, and their Influence on the Value of Land." Out of this ostensibly driest of subjects he managed to evolve a Paper of grea interest, in which minute local experience, antiquarian knowledge, and careful statistical research were all most felicitously blended.

It may here be mentioned that a continuation of this Paper would have appeared in this volume had not the author's design been frustrated by death.

In 1882 Mr. I'Anson wrote a short, but very pithy, Paper, published in the fifteenth volume of the "Transactions," "On the Practice of Discounting the Value of

Estates in Reversion"—a subject which he had made peculiarly his own. This Paper aptly illustrates the severely practical side of his mind, as (in a lesser degree) does a Paper on "The Recent Municipal Works in Rome," read before the Institution a few months before his death. It is curious to observe, in reading this Paper, the complete restraint which he managed to place upon his æsthetic instincts in dealing with this subject, which he treated elsewhere with all the enthusiasm characteristic of the artist and archæologist.

At the Annual Meeting of June 1885 Mr. I'Anson was elected President of the Institution, in succession to the late Mr. T. Smith Woolley. In this capacity he opened the Session, in the following November, with an Address in which he summarised very graphically the vast succession of improvements carried out in London during his professional life, setting forth the merits of the system of Property Tenure under and by means of which so much had been effected for the amelioration of the conditions of life in London, and boldly challenging the views of those who hold that fundamental changes in the Land Laws are needed to adapt them to the necessities of present times.

Under ordinary circumstances Mr. I'Anson, like his predecessors, would probably have been re-elected President for a second term, but, by a coincidence happily illustrative of the dualism of his pursuits, he was, during his first year of office, elected President of the Royal Institute of British Architects, actually holding both positions together for several months.

In view of such practical testimonies to his worth and capabilities, mere eulogy seems out of place. The characteristics of his mind were solidity and simplicity. His manners were extremely quiet—almost reserved—masking, to some extent, but not concealing, the natural courtesy and

gentleness of his disposition. He had an infinite capacity for taking pains, and in contentious business often surprised people by gradually growing from a cautious critic into a formidable, because an unusually exact and passionless, antagonist.

Mr. I'Anson's death took place on the 30th of January last, supervening on a surgical operation for a malady which had inconvenienced him for some months, but had not incapacitated him from business. He was buried at Headley, on Saturday, the 4th of February last.

GEORGE RIDLEY (Honorary), formerly one of the Copyhold Inclosure and Tithe Commissioners, died on the 4th of November last.

He was a son of the late Sir Matthew White Ridley of Blagden, Northumberland, and was educated at Harrow and Oxford. He was called to the Bar in 1843, and in 1856, at the age of 38, entered Parliament, in the Liberal interest, as Member for Newcastle-on-Tyne, and continued to hold his seat until 1860, when he was appointed one of the Copyhold Inclosure and Tithe Commissioners, in succession to Mr. Blamire. Although he did not take much part in debate, he was known in the House as a hardworking and useful Member of Committees, and always took a broad and liberal view of questions which came before him. Many Members of this Institution had business transactions with him when he was at the Copyhold Inclosure and Tithe Office—now the Land Office. His legal training, aptitude for work, and the care he gave to it, and his sound judgment made him a valuable Member of the Commission; and his accessibility, and genial manner, and the readiness with which he, at all times, afforded information, will be remembered by all those who had occasion to seek his advice and assistance. Failing health obliged him to resign his

appointment, and he retired from the public service in 1880, carrying with him the affectionate good wishes of all those who had served with and under him. Mr. RIDLEY was elected an Honorary Member of the Institution (in which he always took much interest) in January 1872.

CORNELIUS SHERLOCK (Fellow), who died on the 20th January, aged 65, had been in practice in Liverpool for forty-four years. He served his articles with the late Mr. PETER ELLIS, of Liverpool, and was for a short time with the late Mr. VERELST, and at the time of his death was the senior partner in the firm of SHERLOCK, WOOD, & KEEF, 51, South John Street, Liverpool.

Among his principal works were the Walker Art Gallery, Liverpool, presented to the public by Sir ANDREW B. WALKER, Bart., the Picton Reading Room and Rotunda Lecture Hall for the Corporation of Liverpool, Schools for the Liverpool School Board, blocks of offices in Victoria Street, and shops and offices in Church Street, Liverpool, Gateacre Church, and numerous gentlemen's residences in the neighbourhood of Liverpool and in Cheshire and North Wales, including Gateacre Grange for Sir A. B. WALKER, for whom he also built model cottages at Gateacre, a brewery at Burton, and other works. He had recently been engaged with his firm in the rebuilding of Ingleton Church, Yorkshire, and at the time of his death had commenced the "Florence" Institute for Boys, in Mill Street, Liverpool.

He had a large and extensive practice as a Surveyor and Valuer, and was constantly engaged in Compensation and other cases as Arbitrator, and as witness for and against the various Railway Companies, and acted largely for Lord DERBY, Lord SEFTON, the Corporation of Liverpool, the West Derby Union, and other bodies.

He was the first Surveyor appointed under the Eccle-

siastical Dilapidations Act of 1871 to the See of Chester, and, when the Diocese was subdivided, acted as Surveyor to the See of Liverpool.

He was also a Surveyor to the Board of Trade, and a Fellow of the Royal Institute of British Architects.

He was frequently called as a witness before Committees of the House of Commons, and was one of the Surveyors consulted for placing evidence before the Select Committee on Town Holdings.

Mr. Sherlock was elected a Fellow of the Institution on December 19th, 1881, and always manifested interest in its proceedings and regard for its welfare.

JOSEPH TOOTELL (Fellow) was the son of a Solicitor at Edgware. He commenced business at Maidstone as a Land-Agent and Surveyor, nearly 50 years ago, and his strict business instincts and marked integrity soon gained for him a high position in the town. He became associated with all societies having a beneficial tendency on the general community, and in 1844 entered public life as a Member of the Town Council. In this capacity he did much useful but unostentatious work, and, having reached the Aldermanic Bench, was twice re-elected an Alderman of the Borough. In 1850 he was elected Mayor of Maidstone. When he retired from the Town Council in 1868, he received the thanks of the Borough for his long and faithful services. Mr. Tootell was also in the Commission of the Peace for the Borough.

The deceased gentlemen was 77 years of age, and continued active business up to the time of his death. He had latterly conducted, as Assistant Land Commissioner, several important Inquiries under the Extraordinary Tithe Redemption Act.

Mr. Tootell was elected a Fellow of the Institution on

January 29th, 1877. He died suddenly at Maidstone on Saturday, November 26th, 1887.

EDMUND WOODTHORPE (Fellow) was the son of the late Mr. Henry Woodthorpe, LL.D., and a pupil of the late Mr. Philip Hardwick, R.A. After the termination of his articles, Mr. Woodthorpe commenced practice in the City, his chief work consisting of Mercantile Premises and Warehouses, and, in later years, the Planning of Industrial and Artisans' Dwellings. He also erected many Schools, Rectories, and Country Residences, and carried out several Church Restorations, including those of St. Giles, Cripplegate, St. Mary, Aldermanbury, and St. Swithin, Cannon Street, and designed the new English Presbyterian Church at Hammersmith. He laid out and developed large Estates at Hammersmith, Richmond, Brook Green, and Stoke Newington, and was largely engaged in Valuations of City Property during the formation of the Metropolitan Railway system.

In 1839 he was appointed by the Middlesex Magistrates District Surveyor for St. Anne, Limehouse, St. John, Wapping, the precinct of St. Katherine, and the Hamlet of Ratcliff; and in 1853 he also received from the Court of Aldermen the appointment of the Northern Division of the City of London, both of which posts he retained until his death. He recently served as President of the Association of District Surveyors. He was also Architect to the Girdlers' Company, and Surveyor to the Parish and Joint Trustees of Cripplegate.

He was a Fellow of the Institution, having been elected on March 3rd, 1875.

Mr. Woodthorpe's death took place on Saturday, November 26th, 1887, in the 75th year of his age.

THOMAS SMITH WOOLLEY (Past-President) was the eldest son of the late Mr. T. Smith Woolley, of Collingham Manor, Newark, well-known as a land-agent in the earlier part of the present century, and later as the senior Assistant Tithe Commissioner. His son, the subject of this memoir, was born on the 22nd of April, 1819, and was educated partly at a private school at Newark, and partly at a private tutor's in Cumberland. Like his friend the late Mr. Huskinson, he commenced business at a period when opportunities abounded for earning distinction in his walk in life. They were times in which the prompt and capable came naturally to the front. The agitation against the payment of tithes in kind, a system long complained of as a tax upon agricultural improvement, and against special customary payments or *modi decimandi*, which took their place in many parts of England, led to a Parliamentary Inquiry and, under the Second Reformed Parliament, to the Tithe Commutation Act of 1836. This measure opened up a very large field of profitable employment to Surveyors in the apportionment of the new corn rent-charge over the lands of each parish. The opening of the Liverpool and Manchester Railway in 1830, and of the London and Birmingham Railway in 1833, gave an extraordinary impulse to railway enterprise. The innumerable dealings with property involved in these operations afforded an additional scope for the activities of land-agents and valuers, increased still further by the great development of agricultural industry which naturally resulted from the opening up of a wider market for farm produce. Mr. Woolley, accordingly, soon found himself immersed in business of every description connected with the valuation, sale, purchase, and management of property, in Tithe matters and Inclosures, in Drainage and Reclamation Schemes, and as a professional witness before Parliamentary and other Committees. He was for thirty years one of the Inspectors under the Land (Inclosure)

Commissioners, and only resigned the appointment in the last year of his life. He also acted as valuer in numerous inclosures, among which may be mentioned Prestwick Carr in Northumberland, Wychwood, Standlake (Oxon.), and Barrowden (Rutland). In addition he held a large number of agencies—a branch of his business, however, to which he did not give much of his personal attention in recent years.

A man of fine natural physique and wholesome habits, his energies were exercised in many directions outside his ordinary avocations. He had the "public conscience," and threw himself heartily into every movement which seemed to make demands upon him as a patriot and a citizen. The volunteer movement at once appealed to his sympathies, and, with the thoroughness which characterised him, he raised, and commanded for twenty years, a local corps in his native village. He also took up very warmly the cause of popular education, and was Chairman of the Collingham School Board from its formation, in 1875, to the time of his death.

Mr. Woolley was one of the first invited to join the original promoters of the Institution, and did so in June 1868. He was elected a Member of the Council in June 1874, and a Vice-President in May 1876.

He always attended the meetings when in town, and many will remember the great hearty "hear, hear," with which he invariably greeted any unusually sturdy or outspoken utterance; for he loved a man who had the courage of his opinions. Although a frequent speaker at the meetings he contributed but one Paper to the "Transactions." The subject was the "Modern Land Surveyor, his Qualifications, Duties, and Responsibilities," read at the meeting of May 6th, 1872. The Paper is thoroughly characteristic of the writer, and had it appeared anonymously its authorship would not have been for one moment in doubt. Mingled with touches of dry humour, odd associations of idea, and a species of good-natured banter in which he delighted, was a clear strain of sound good sense and manly counsel. He had the true measure of the dignity of his vocation, and his words are worth reprinting.

"It is the habit," he says, "of some landowners— "happily a very small and diminishing minority—to regard "their *estate agents* as mere machines for carrying out their "own wishes and decisions, and it, unfortunately, often "happens, under such circumstances, that the wishes and "decisions are such as ought not to be carried out.

"It is not of such cases I am speaking, but of those "increasingly numerous instances in which the Surveyor's "opinion has such weight with his employers, whether "ordinary owners or corporate bodies, on all points con- "nected with the estates, that practically the management "of them, and by consequence nearly all responsibility of "them, is in his hands.

"Is the Surveyor, in such circumstances, to act as if he "held a brief for his employer solely, and to ignore or con- "trovert unfairly the rights or claims of their tenants or "dependents?

"I say no; he should regard all questions between "them with judicial impartiality, being neither led by "amiable weakness, or a desire for popularity, into trifling "away his employer's rights, nor by even less worthy "motives, into an unjust and arbitrary dealing with his "dependents.

"Not only is it right in the abstract, that this principle "should be observed, but it is very certain, regarding the "matter from the lowest point of view, as a question of "expediency, that it is the best way of managing an "estate."

Mr. Woolley was elected President of the Institution in May 1883, in succession to Mr. Ryde, and was re-elected for a second term of office in the following year. How conscientiously he fulfilled its duties is in the memory of all. Despite the fact that he resided 125 miles from London, he was present and took the chair at nineteen out of twenty-six Ordinary General Meetings held during his term of office. This was in addition to attendances at meetings of the Council and of the various Committees of the Institution—in fact, he illustrated in his acts the ideal of duty on which he insisted in words.

Towards the end of his second year of office his health was visibly affected. Shortly afterwards he was advised to seek the softer climate of the south coast, and he spent some months at Hastings and Eastbourne. During this period he wrote for the first volume of "Professional Notes" a lively review entitled "Science without Practice." His article might have been headed "Raillery without Malice." It typifies the writer's attitude towards pretentious folly, and represents the furthest point to which he permitted himself to go in rebuking it.

With the Annual Meeting of May 1885, Mr. Woolley's active connection with the Institution ceased, though his interest in its welfare continued unabated to the end. He died at Collingham on the 8th of May, 1888.

Upon everything he said or did there was the stamp of a hearty, generous manhood. He was incapable of meanness in thought or action, and his kindly nature was ever discovering in surrounding circumstances palliations for the faults of others. There was a benevolence about him that personal injuries could not ruffle. This fine characteristic constrained him, in an instance within the writer's knowledge, to secretly relieve the necessities of one who had betrayed his kindness. Indeed, in every relation of life he was the same kindly, chivalrous, high-minded gentleman. His breadth of knowledge appeared in all he said or wrote, and his large miscellaneous library at Collingham was a perfect mirror of his mind. The Dramatists of the Restoration had a natural fascination for one so keenly alive to every form of humour, and his love for them broke out in an amusing way at the end of his Presidential Address (mainly on matters agricultural), delivered in November 1884.

It was impossible to know him without liking him, and to know him intimately without sentiments of the warmest regard. His death was a personal bereavement to a large circle of friends, but by none is it more lamented than by those with whom he laboured for so many years to build up the Institution of which he lived to become the honoured head.

LIST OF DONATIONS AND CONTRIBUTIONS TO THE LIBBARY FROM JUNE 1st, 1887, TO JUNE 1st, 1888.

DONATIONS OF BOOKS, MAPS, &c.

Donors.	Title of Work.
Agricultural Gazette, Editor of the	"The Agricultural Gazette," 1887-88.
Architect, Editor of the	"The Architect," 1887-88.
Association of Lands Valuation Assessors for Scotland	"Proceedings," 1887-88.
Bath and West of England Society	"Journal," 1887-88.
Battam, F. T.	E. Oldfield's "History of Wainfleet," 1829.
British Architect, Editor of the	"The British Architect," 1887-88.
Builder, Editor of the	"The Builder," 1887-88.
Builder's Weekly Reporter, Editor of the	"The Builder's Weekly Reporter," 1887-88.
Building News, Editor of the	"The Building News," 1887-88.
Cates, A.	Papers read at the General Conference of Architects on Education, May 1887.
Christy, A. E.	W. Gardiner's "Practical Surveying," 1737. J. Owen's "Britannia Depicta, or Ogilby improved," 1731. Arthur Young's "Farmer's Letters," 1768.
Civil and Mechanical Engineers' Society	"Transactions," 1886-87.
Clowes, W.	"The Solicitor's Journal," 1864-1888.
Contract Journal, Editor of the	"The Contract Journal," 1887-88.
Crosby, Lockwood & Co.	J. Keily's "Treatise on Expansion of Structures by Heat."
Elliot, T. J.	Treatise entitled, "The Land Question: its Examination and Solution."
Estates Gazette, Editor of the	"The Estates Gazette," 1887-88.
Farmers' Club	"Journal," 1887-88.
Field, Editor of the	"The Field," 1887-88.

Donors.	Title of Work.
Guildhall Improvement Committee of the Corporation of London	Chromo-lithographic View of the New Council Chamber, Guildhall.
Haywood, Lieut.-Colonel W.	Report on the Works executed by the Hon. the Commissioners of Sewers, 1887.
Horticulture, Journal of, Editor of the	"The Journal of Horticulture," 1887-88.
Institution of Civil Engineers	"Proceedings," 1887-88.
Institution of Mechanical Engineers	"Proceedings," 1887-88.
Iron, Editor of	"Iron," 1887-88.
Jones, C.	Paper on "Refuse Destructors and their Results up to the present time," 1887.
Land and Water, Editor of	"Land and Water," 1887-88.
Land Agent's Record, Editor of the	"The Land Agent's Record," 1887-88. C. E. Curtis's "Treatise on Practical Forestry and its Bearing on the Improvement of Estates."
London and Middlesex Archeological Society	"Transactions," 1887-8.
Lucas, J.	Maps of the Hydrogeology of Middlesex. Translation of Petumkoff's "Geology and Hydrogeology of Moscow." Bayley's "History of Louth," 1834.
Menzies, W.	"Cottages for Rural Districts."
Metropolitan, Editor of the	"The Metropolitan," 1887-88.
Miles, M.	Potter's "Charnwood Forest."
Minister of Public Works of Rome	"Journal of the Civil Engineers of Rome," 1887-88.
Murray, G.	Pamphlets on "The best means of Improving the Financial Position of Agriculture," and "How to make the most of Home-Grown Produce by the addition of Purchased Food."
North of England Institute of Mining and Mechanical Engineers	"Transactions," 1887-88.
Parker-Rhodes, C. E.	"Treatise on Water Supply."
Prideaux, Walter S.	"Town Holdings: a Digest of Evidence as to England and Wales, given before the Select Committee of the House of Commons," 1886-87.
Rickman, T. M.	J. Johnstone's "Treatise on the Mode of Draining Land on the System practised by J. Elkington." G. Boswell's "Treatise on Water Meadows, &c.," 1801.
Rolleston, J. F. L.	"Proceedings of the Bi-metallic Conference," April 1888. "Bi-metallism in the Market Place, or the Silver Question in its Agrarian Aspect." "The Gold and Silver Question: its Bearing on Agriculture."

Donors.	Title of Work.
Roods, A.	MacGibbon and Ross's "Castellated and Domestic Architecture of Scotland," Vol. 2.
Royal Agricultural Society of England	"Journal," 1887-88.
Royal Engineer Institute	"Professional Papers of the Corps of Royal Engineers," 1886.
Royal Institute of British Architects	"Journal of Proceedings," 1887-88.
	"Transactions," new series, Vol. 3.
Royal Statistical Society	"Journal," 1887-88.
Sanitary Institute of Great Britain	"Transactions," 1887-88.
Secretary of State for India	"An Account of the Operations of the Great Trigonometrical Survey of India," Vol. 4a.
Shropshire Land Agents' Society	"Proceedings," 1887-88.
Société des Géomètres of France	"Journal," 1887-88.
Terry, S. H.	Pamphlet on "Street Watering with Sea-water."
Walcott, Lyons R. S.	C. de Kirwan's "Flore Forestière."
Walmisley, A. T.	A.T. Walmisley and J.F. Heather's "Treatise on Mathematical Instruments."
	Pamphlet—"Architectural Notes on Usk Church, Monmouthshire."
Williams, S. W.	"Report on Excavations at Strata Florida Abbey Llansaintffread, Llanhamlach and Llanfigan Churches."
Wilson, T. S.	G. B. Bulmer's "Architectural Studies in Yorkshire."

CONTRIBUTIONS IN MONEY.

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G. Allen	3	3	0
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THE SURVEYORS' INSTITUTION

(*Incorporated by Royal Charter*),

12, GREAT GEORGE STREET, WESTMINSTER, S.W.

LIST OF MEMBERS, JULY 1st, 1888.

Honorary Members.

Date of Election and of Transfer.		
1874, Apr. 13	BEDFORD, HIS GRACE THE DUKE OF	81 & 82, Eaton Square, S.W.
1878, Nov. 11	BUCAILLE, EUGÈNE	168, Boulevard de Strasbourg, Havre, France.
1875, Mar. 15	CAIRD, SIR JAMES, K.C.B. . .	Land Office for England, St. James's Square, S.W.
1877, Jan. 15	CONSTABLE, JOHN, The REV. . .	Marston Bigot, Frome, Somersetshire.
1886, Jan. 11	CULLEY, GEORGE	Office of Woods, Forests, and Land Revenues, 1, Whitehall Place, S.W.
1880, Jan. 5	GILLET, GEORGES EDOUARD . .	Joinville, Haute-Marne, France.
1871, Jan. 30	GORE, CHARLES ALEXANDER, The HONORABLE	West Side, Wimbledon Common, S.W.
A. '81, Mar. 21 H.M.'86, Mar. 8	GRANTHAM, SIR WILLIAM . .	82, St. George's Square, S.W.
1880, May 10	HAMPDEN, THE RIGHT HON. LORD VISCOUNT	Glynde, Lewes, Sussex.
1883, May 21	HARTINGTON, THE RIGHT HON. THE MARQUIS OF	Devonshire House, Piccadilly, W.
1886, Jan. 11	KINGSCOTE, COLONEL ROBERT NIGEL FITZHARDINGE, C.B. .	Office of Woods, Forests, and Land Revenues, 1, Whitehall Place, S.W.
A. '69, Jul. 26 H.M.'71, Feb. 27	LEACH, GEORGE ARCHIBALD, LIEUT.-COLONEL	Land Office for England, St. James's Square, S.W.
1887, Jan. 24	LYTTELTON, THE RIGHT HON. LORD.	Land Office for England, St. James's Square, S.W.
1885, Apr. 20	M'CLELLAN, JOHN B., M.A., The REV.	Royal Agricultural College, Cirencester.

Fellows.

Diploma Number.	*Date of Election and of Transfer.*	The names of those Fellows who have qualified for the Class by Examination are distinguished thus *	
034	1884, Jan. 14	ABBOTT, ROBERT THOMAS G. .	Quarry Cottage, Norton, Malton, Yorkshire.
1	1868, Jun. 15	ADAMS, CHARLES FREDERICK .	Barkway, Herts.
105	1884, Feb. 25	ADAMS, HENRY	60, Queen Victoria Street, E.C.

Dip No.	Date of Election and of Transfer.	FELLOWS.	
612	1881, Feb. 21	ADDIE, WILLIAM FORRESTER .	Powis Castle Estate Office, Welch Pool, Montgomeryshire.
664	A. '81, Dec. 19 / F. '86, Dec. 8	ADKIN, CHARLES DUNCAN . .	Wantage, Berks.
1479	1888, Apr. 30	ALLEN, GEORGE	Estate Offices, Stalbridge, Dorset.
982	1883, Dec. 17	ALLEN, HENRY ROBERT . . .	50, Finsbury Square, E.C.
597	A. '81, Jan. 10 / F. '84, Mar. 10	ANDERSON, ROBERT, JUN. . .	The Barton, Cirencester.
287	1872, Dec. 9	APPERLEY, WILLIAM HAVARD .	Hereford.
1279	A. '85, Dec. 7 / F. '87, Dec. 5	*ARCH, ARTHUR JOSEPH EDWIN.	The China Railway Company, Tientsin, North China.
198	1869, May 3	ARDING, CHARLES BENNETT. .	22, Surrey Street, Strand, W.C.
1183	1884, Apr. 21	ARMISTEAD, RICHARD . . .	118, Main Street, Bingley.
791	1882, Apr. 24	ARMSTRONG, THOMAS JOHN . .	14, Hawthorn Terrace, Newcastle-on-Tyne.
404	1875, Nov. 8	AUSTIN, RUSSELL GARDENER .	Hertford.
140	A. '68, Nov. 2 / F. '87, Feb. 7	BADCOCK, PHILIP	9, Whitehall Place, S.W.
1005	A. '83, Dec. 17 / F. '84, Dec. 8	BAIRD, JONATHAN PEEL . . .	Estate Office, Somerley, Ringwood, Hants.
812	1882, May 22	BALLARD, EDMUND	Elwick House, Ashford, Kent.
479	1877, Mar. 12	BALLS, JAMES MAYHEW . . .	Castle Hedingham, Essex.
606	1881, Feb. 7	BANNISTER, THOMAS. . . .	Limehurst, Hayward's Heath, Sussex.
712	1882, Jan. 30	BARFIELD, FREDERIC HENRY .	Faringdon, Berks.
259	1885, Mar. 9	BARKER, CALEB	Estate Office, Shadwell, Thetford.
983	1883, Dec. 17	BARNES, JOHN WILLIAM JAMES	Brougham Chambers, Wheeler Gate, Nottingham.
1307	1886, Feb. 22	BARNES-WILLIAMS, THOMAS .	11, Clement's Lane, E.C.
118	1868, Aug. 17	BARRY, CHARLES	1, Westminster Chambers, Victoria Street, S.W.
1056	1884, Jan. 28	BATE, THOMAS	The Red Tower, Kilburn, N.W.
726	1882 Feb. 13	BATH, FRED	Crown Chambers, Salisbury, Wilts.
1368	1887, Feb. 7	BATTAM, FREDERICK THOMAS .	28, Mount Street, Grosvenor Square, W.
3	1868, Jun. 15	BEADEL, WILLIAM JAMES, M.P. (*Past-President*)	97, Gresham Street, E.C.
1450	1888, Feb. 6	BEAUMONT, CHARLES . . .	East Bridgford, near Nottingham.
136	1868, Nov. 2	BEAUMONT, GEORGE . . .	East Bridgford, near Nottingham.
1153	1884, May 5	BECK, EDMUND	Sandringham, Norfolk.
1457	1888, Feb. 20	BECK, EDWARD WILLIAM . .	Melton Constable, East Dereham, Norfolk.
959	A. '83, May 25 / F. '87, May 28	*BEDELLS, CHARLES HERBERT .	6, John Street, Bedford Row, W.C.
525	1879, Jan. 6	BEDELLS, CHARLES KING . .	6, John Street, Bedford Row, W.C.
317	1878, Dec. 8	BEESTON, FREDERICK . . .	30, Lincoln's Inn Fields, W.C.
1451	1888, Feb. 6	BEEVER, WILLIAM FREDERICK HOLT	Greenlands Estate Office, Henley-on-Thames
1433	1888, Jan. 9	BEKEN, GEORGE	2, Circus Place, London Wall, E.C.
630	1881, Dec. 19	BELL, GEORGE GRAHAM . .	11, Pall Mall East, S.W.
1458	1888, Feb. 20	BELL, JOSEPH ASKEW . . .	Rufford Estate Office, Ollerton, Notts.
388	1875, Mar. 1	BENNETT, THOMAS OATLEY . .	Bruton, Somerset.
1187	1884, May 26	BENINGFIELD, HENRY . . .	16, Union Court, E.C.

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631	1881, Dec. 19	BERRIDGE, ROBERT	181, Bishopsgate Street Without, E.C.
1214	1884, Dec. 8	BERTWISTLE, JAMES	1, Tackett's Street, Blackburn.
984	1883, Dec. 17	BETTRIDGE, EDWARD . . .	28, Waterloo Street, Birmingham.
1239	1885, Jan. 12	BICKERTON, GEORGE ARTHUR .	62, King William Street, E.C.
190	1869, Mar. 22	BIDWELL, CHARLES	Ely, Cambridgeshire.
912	1883, April 2	BIDDELL, WILLIAM	Lavenham Hall, Suffolk.
1369	1887, Feb. 7	BIGGE, CHARLES SELBY . .	30, Lincoln's Inn Fields, W.C., The Mote, Sevenoaks, Kent, and Bridgnorth.
396	1875, Apr. 12	BINGHAM, REUBEN	5, Bolton Street, Piccadilly, W.
131	1868, Oct. 26	BINNIE, THOMAS	207, Hope Street, Glasgow.
113	1868, Aug. 10	BIRD, JAMES BINFIELD . . .	14, Queen Victoria Street, E.C., and West Cowes, Isle of Wight.
1154	1884, May 5	BIRD, WALTER	61, Edgware Road, W.
1320	1886, May 17	BIRKETT, WILLIAM	Maryfield, Retford, Notts.
1326	1886, Dec. 6	BLACKFORD, ARTHUR . . .	1, Gray's Inn Place, W.C.
1262	1885, Mar. 23	BLAKE, FREDERICK	130, Queen Street, Portsea, Hants.
883	1883, Feb. 12	BLAKE, WILLIAM JOHN, JUN. .	45, High Street, Croydon.
773	1882, Mar. 13	BLAKEMORE, WILLIAM AGUTTER	24, Salisbury Street, Strand, W.C.
1057	1884, Jan. 28	BLASHILL, THOMAS	Metropolitan Board of Works, Spring Gardens, S.W.
1058	1884, Jan. 28	BLEWITT, EDWARD ROBERT . .	Rainham, Essex.
511	A. '78, May 13 / F. '87, Mar. 7	BLOSSE, EDWARD F. LYNCH .	Charles Street Chambers, Cardiff.
1452	1888, Feb. 6	BODY, JOHN BOND	Old Town Chambers, Plymouth.
330	1874, Feb. 2	BOLAM, CHARLES GODFREY . .	Estate Office, Boughton House, Kettering, Northamptonshire, and 82 & 83, Palace Chambers, S.W.
450	1876, May 8	BOLAM, WILLIAM THOMAS . .	Cross House, Westgate Road, Newcastle-upon-Tyne.
408	1875, Dec. 13	BOLDEN, JOHN LEONARD . .	47, Arundel Gardens, Notting Hill, W.
199	1869, May 3	BOND, ERASMUS	22, Surrey Street, Strand, W.C.
24	1868, Jun. 15	BONNY, JAMES RIPPOTH . . .	Palmer's Hill House, Palmer's Green, Southgate, N., and 47, Old Broad Street, E.C.
960	A. '83, May 25 / F. '86, Apl. 12	*BONTOR, FRANK ARTHUR . .	29, Fleet Street, E.C.
813	1882, May 22	BOOKER, ALGERNON ERSKINE .	Albion House, Hyde Park Square, W.
632	1881, Dec. 19	BOTTERILL, WILLIAM . . .	23, Parliament Street, Hull.
1380	1887, Mar. 21	BOVILL, ALFRED	24, Charing Cross, S.W.
1134	1884, Apr. 21	BOWER, WILLIAM JOHN . . .	6, St. James Street, Derby.
62	1868, Jul. 13	BOWLER, WILLIAM ANTHONY .	Crouch Street, Colchester, Essex.
1249	1885, Feb. 9	BOWLES, ARTHUR HUMPHREY .	Temple Court, near Guildford, Surrey.
1476	1888, Apr. 16	BOYES, HENRY COWELL. . .	62, Lincoln's Inn Fields, W.C.
1325	1886, Nov. 22	BRACKETT, ARTHUR WILLIAM .	27, High Street, Tunbridge Wells, Kent.
870	1883, Jan. 29	BRACKETT, WILLIAM . . .	27, High Street, Tunbridge Wells.
1397	1887, Dec. 5	BRAILSFORD, HENRY. . . .	Park Nook, near Derby.
1059	1884, Jan. 28	BRAY, HARRY	14, Warwick Court, Gray's Inn, W.C.
1441	1888, Jan. 23	BREACH, BENJAMIN I'ANSON .	2, Serle Street, Lincoln's Inn Fields, W.C.
727	1882, Feb. 13	BRERETON, FRANC SADLEIR . .	292, High Holborn, W.C.

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953	1883, May 25	BRINSLEY, GEORGE	30 and 31, New Bridge Street, E.C.
1370	1887, Feb. 21	BRIDGFORD, ERNEST JAMES .	28, Cross Street, Manchester.
1309	1886, Mar. 8	BRIDGFORD, ROBERT, C.B. . .	28, Cross Street, Manchester.
829	1882, Dec. 18	BRIDGEWATER, BENTLEY JAMES	80, Cheapside, E.C.
359	1874, Dec. 7	BROOK, JAMES	12, 13, & 14, Estate Buildings, Huddersfield.
1060	1884, Jan. 28	BROWN, BRADSHAW	59, Fenchurch Street, E.C.
322	1874, Jan. 5	BROWN, DANIEL JOHNSON . .	61, Lincoln's Inn Fields, W.C.
63	1868, Jul. 13	BROWN, GEORGE	Roborough House, Barnstaple, Devonshire.
634	1881, Dec. 19	BROWN, GEORGE JAMES . . .	8, Spring Gardens, S.W.
933	1883, April 30	BROWN, JOHN POWLES . . .	21, East Street, Hereford.
173	1869, Feb. 22	BROWN, THOMAS FORSTER . .	Guildhall Chambers, Cardiff.
165	1869, Feb. 8	BROWN, WILLIAM.	Tring, Herts.
1313	1886, May 8	BROWN, WILLIAM BLUMFIELD .	5, Henrietta Street, W.C.
1291	1886, Jan. 11	BRYDON, ROBERT	The Dene, Seaham-Harbour, Durham.
246	1870, Dec. 12	BUCHAN, THOMAS.	15, Barrack Street, Dundee.
77	1868, July 13	BUCK, ALBERT	Worcester.
270	1871, Dec. 18	BUCKLAND, FRANK BOWRY . .	Windsor.
1215	1884, Dec. 8	BURD, LAURENCE	Mayfield, Shrewsbury.
80	1868, Jul. 20	BURNELL, EDWARD HENRY . .	32, Bedford Row, W.C
635	1881, Dec. 19	BURNETT, DAVID	14, Nicholas Lane, E.C.
379	1875, Feb. 1	BURROUGHES, THOMAS HENRY.	16, Lower Berkeley Street, W., and 30, Linco Inn Fields, W.C.
814	1882, May 22	BURROWS, ALFRED JOE . . .	Surrenden Estate Office, Pluckley, Kent.
1216	1884, Dec. 8	BURTENSHAW, ALBERT . . .	Hailsham, Sussex.
823	1874, Jan. 5	BUZZARD, ALFRED LINDSEY. .	22, Surrey Street, Strand W.C.
1377	1887, Mar. 7	CANNING, WILLIAM BROWNE .	Salisbury, and Elston, near Devizes.
787	A. '82, Mar. 27 / F. '84, Jan. 14	CARD, HENRY CURTIS . . .	North Street, Lewes, Sussex.
232	A. '70, Feb. 7 / F. '80, Nov. 22	CARRITT, ERNEST	18 & 19, Great St. Helen's, E.C.
800	A. '82, Apr. 24 / F. '83, Jan. 15	CARPENTER, EVAN GEORGE .	45, High Street, Croydon, Surrey.
954	1883, May 25	CARTWRIGHT, GEORGE KINGSFORD	Office of the Duchy of Lancaster, 34, De W Gardens, South Kensington, S.W.
636	1881, Dec. 19	CARTWRIGHT, SIR HENRY EDWARD	1, Courtfield Gardens, S.W.
444	1876, Apr. 24	CASSELL, JAMES ROBERT . .	11, Billiter Square, E.C.
920	1883, April 16	CASTLE, GEORGE RICHARD . .	Bicester, Oxford.
328	1874, Jan. 19	CASTLE, HENRY JAMES, SEN. (*Member of Council*)	40, Chancery Lane, W.C.
637	1881, Dec. 19	CASTLE, HENRY JAMES, JUN. .	37, Bedford Row, W.C.
295	1873, Jan. 13	CASTLE, ROBERT	Merton Street, Oxford.
1201	A. '84, May 26 / F. '87, Nov. 14	CASTLE, SYDNEY CHARLES COURTENAY.	40, Chancery Lane, W.C., and Neustead, A land Road, Upper Norwood, S.E.
278	1872, Mar. 11	CASTLE, WILLIAM HENRY BALDWIN	40, Chancery Lane, W.C.
247	1870, Dec. 12	CATES, ARTHUR	7, Whitehall Yard, S.W.

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362	1875, Jan. 4	CAVE, HENRY H.	The Manor House, Brigg, Lincolnshire.
1480	1888, Apr. 30	CAVE, THOMAS NEWMAN . .	Horton, Northamptonshire.
1263	1885, Mar. 23	CHADWICK, SPENCER	17, Parliament Street, S.W.
1061	1884, Jan. 28	CHANCELLOR, ALBERT . . .	1, King Street, Richmond, Surrey.
219	1870, Jan. 10	CHANCELLOR, FREDERICK . .	20, Finsbury Circus, E.C., and Chelmsford, Essex.
1274	1885, Nov. 23	CHESTERTON, EDWARD . . .	22, Lower Phillimore Place, Kensington, W.
1135	1884, Apr. 21	CHESTON, CHESTER	Dashwood House, New Broad Street, E.C.
57	1868, Jul. 6	CHINNOCK, FREDERICK GEORGE	11, Waterloo Place, S.W.
1347	1887, Jan. 10	CLARE, EDWARD LOVELL . .	33, Friar Lane, Leicester.
681	1882, Jan. 16	CLARK, SAMUEL	8, New Cavendish Street, W.
682	1882, Jan. 16	CLARKE, ALFRED DUDLEY . .	Southwick Estate Office, Fareham, Hants.
1074	A. '84, Jan. 2 / F. '86, Jan. 11	CLARKE, HOWARD CHATFEILD .	63, Bishopsgate Street Within, E.C.
973	1883, Nov. 12	CLARKE, RICHARD	Surveyor's Office, Parish Offices, Birmingham.
27	1868, Jun. 15	CLARKE, THOMAS CHATFEILD . (*Vice-President*)	63, Bishopsgate Street Within, E.C.
5	1868, Jun. 15	CLIFTON, EDWARD NORTON . . (*Past-President*)	7, East India Avenue, E.C.
1310	1886, Mar. 8	CLOUGH-TAYLOR, HORACE GEO.	Friar Lane, Leicester.
29	1868, Jun. 15	CLUTTON, HENRY	Hartswood, Reigate, Surrey.
6	1868, Jun. 15	CLUTTON, JOHN . . . . . (*Past-President*)	9, Whitehall Place, S.W.
78	A. '68, Jul. 13 / F. '75, May 10	CLUTTON, JOHN HENRY . . .	9, Whitehall Place, S.W.
61	A. '68, Jul. 6 / F. '74, Apr. 13	CLUTTON, RALPH	9, Whitehall Place, S.W.
221	A. '70, Jan. 10 / F. '75, Dec. 13	CLUTTON, RALPH WILLIAM . .	Hartswood, Reigate, Surrey.
65	1868, Jul. 13	CLUTTON, ROBERT GEORGE . . (*Member of Council*)	9, Whitehall Place, S.W.
153	1869, Jan. 11	CLUTTON, WILLIAM JAMES . .	The Mount, York.
713	1882, Jan. 30	COBB, HERBERT MANSFIELD .	Higham, Kent, and 43, Lincoln's Inn Fields, W.C.
31	1868, Jun. 15	COBB, ROBERT LAKE. . . . (*Member of Council*)	Higham, Kent.
769	A. '82, Feb. 27 / F. '84, Jan. 28	COLGATE, THOMAS, JUN. . . .	Glynde, Lewes, Sussex.
119	1868, Aug. 17	COLLINS, HENRY HYMAN . .	61, Old Broad Street, E.C.
193	1869, Apr. 5	COMELY, JOHN GILL	Winchester, Hants.
1035	1884, Jan. 14	COOK, EDWARD SAMUEL . .	60, Queen Victoria Street, E.C.
1172	1884, May 19	COOPER, ARTHUR LESLIE . .	86, High Street, Maidenhead.
715	1882, Jan. 30	COOPER, JOHN GROVES . . .	Bideford, Devon.
895	1883, Feb. 26	COOPER, JOHN THOMAS. . .	41, Moorgate Street, E.C.
445	1876, Apr. 24	COOTE, GEORGE	Smeetham Hall, Sudbury, Suffolk.
985	1883, Dec. 17	COOTE, JOHN	Sudbury, Suffolk.
934	1883, April 30	COUCHMAN, ROBERT EDWARD .	3, Bennett's Hill, Birmingham.
556	1880, Jan. 5	COVERDALE, FREDERICK JOHN .	Ingatestone Hall, Essex.
728	1882, Feb. 13	COVERDALE, HENRY	Cossey, Norfolk.
495	1878, Jan. 28	COWGILL, WILLIAM	Bradford.

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729	1882, Feb. 13	Cox, George James	1, Promenade, Cheltenham.
159	1869, Jan. 25	Crawter, John	Cheshunt, Herts.
160	1869, Jan. 25	Crickmay, George Rackstrow.	17, Parliament Street, S.W., and St. Tho Street, Weymouth.
730	1882, Feb. 13	Cronk, Edwyn Evans . . .	12, Pall Mall, S.W., and Sevenoaks, Kent.
731	1882, Feb. 13	Cronk, Frank	12, Pall Mall, S.W., and Sevenoaks, Kent.
871	1883, Jan. 29	Cronk, William Henry . .	Sevenoaks, Kent.
416	1876, Jan. 10	Cross, John	77, King Street, Manchester.
307	1873, Apr. 21	Cross, William Stephens . .	18, Outer Temple, and 2, Cecil Street, Strand, W
389	A. '75, Mar. 1 / F. 80, Nov. 8	Cruse, Edmund	34, High Street, Warminster, Wiltshire.
32	1868, Jun. 15	Currey, Henry	37, Norfolk Street, W.C.
1381	1887, Mar. 21	Curry, Henry John . . .	58, High Street, Stockton-on-Tees.
581	1880, Dec. 13	Curtis, Charles Edward . .	Deanyers, Alton, Hants.
483	1877, Apr. 16	Curtis, Robert Leabon . .	119 and 120, London Wall, E.C.
548	1879, Apr. 28	Curtis, Samuel Perkins . .	119 and 120, London Wall, E.C.
986	1883, Dec. 17	Daintree, John Osborn . .	Redlands, Lolworth-by-St. Ives, Hunts.
387	A. '75, Feb. 15 / F. '84, Jan. 14	Dale, John	16, Whitehall Place, S.W.
688	1881, Dec. 19	Dallas, Edwin Stuart . . .	34, Great James Street, Bedford Row, W.C.
987	1883, Dec. 17	Daniel, Harry Augustus Hood	Chasefield, Fishponds, near Bristol.
732	1882, Feb. 13	Dann, Henry	Bexley, Kent.
510	1878, Apr. 29	Darley, William	Eastfield, Askern, Doncaster.
896	1883, Feb. 26	Dash, Thomas Alexis . . .	12, Whitehall Place, S.W.
300	1873, Feb. 10	Davies, John Morgan . . .	Froodvale, Llandilo, Carmarthenshire.
491	A. '77, Dec. 10 / F. '81, Nov. 14	Davis, James	32, Strand, W.C.
897	1883, Feb. 26	Daw, William Herbert . .	62, Coleman Street, E.C.
1009	A. '83, Dec. 17 / F. '87, Nov. 14	*Day, William, Jun. . . .	23, High Street, Maidstone, Kent.
688	1882, Jan. 16	Deacon, Thomas Mark. . .	1, Adelaide Street, Charing Cross, S.W.
1442	1888, Jan. 23	Debenham, Frank Gissing .	Cheshunt Park, Herts, and 80, Cheapside, E.
1085	1884, Feb. 11	Debenham, Thomas Nunn . .	80, Cheapside, E.C.
1116	1884, Mar. 10	Dennant, William Freeth .	15, Walbrook, E.C.
863	1883, Jan. 15	Dent, Ralph John . . .	Streatlam House, Darlington.
8	1868, Jun. 15	Denton, John Bailey . . .	Palace Chambers, 9, Bridge Street, S.W.
759	1882, Feb. 27	Dew, William Arthur . . .	Wellfield House, Bangor.
1228	A. '84, Dec. 8 / F. '85, May 18	*Dickson, Thomas Arthur . .	28, Cross Street, Manchester, Lancashire
884	1883, Feb. 12	Dinwiddy, Thomas	Croom's Hill, Greenwich Park.
169	A. '69, Feb. 8 / F. '78, Feb. 25	Dodgson, Wilfred Longley .	The Court, Cleobury North, Bridgnorth, 55, Broad Street, Ludlow.
1136	1884, Apr 21	Doll, Charles Fitzroy . .	74, Gower Street, Bedford Square, W.C.
1250	1885, Feb. 9	Donne, Henry	Leek Wootten, Warwick.
168	A. '69, Jan. 25 / F. '82, Nov. 31	Dowden, Henry Joseph . .	6, Spring Gardens, S.W.
716	1882, Jan. 30	Dowling, Clement	32, Craven Street, W.C.

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493	1878, Jan. 14	Downing, Frederick . . .	7A, Whitehall Yard, S.W.
817	A. '82, May 22 / F. '84, May 19	Draper, Arthur Thomas . .	Friar Lane, Leicester.
348	1887, Jan. 10	Dray, Alfred	Town Hall Chambers, Hastings, Sussex.
301	1873, Feb. 10	Drew, Henry	15, Queen Street, Exeter.
275	1872, Feb. 26	Drew, John	15, Queen Street, Exeter, and Powderham Castle, near Exeter.
913	1883, April 2	Drewitt, George	94, High Street, Guildford.
419	A. '76, Jan. 10 / F. '78, Feb. 25	Driver, Charles William .	4, Whitehall, S.W.
9	1868, Jun. 15	Driver, Robert Collier . . *(Vice-President)*	4, Whitehall, S.W.
582	1880, Dec. 13	Driver, Robert Manning . .	4, Whitehall, S.W.
684	1882, Jan. 16	Drury, Edward Dru . . .	25, Queen Anne's Gate, S.W.
324	1874, Jan. 5	Dunch, Charles.	St. Clement's House, St. Clement's Lane, E.C.
252	1871, Jan. 30	Dunlop, Alexander Milne . *(Member of Council)*	3, Old Palace Yard, S.W.
792	1882, Apr. 24	Dyer, William John . . .	Montpelier Row, Blackheath, S.E.
35	1868, Jun. 15	Dymond, Francis Williams .	Exeter.
1251	1885, Feb. 9	Eade, Arthur Willoughby French	Feethams, Darlington.
864	1883, Jan. 15	Eales, Frederick Ernest .	9, Welbeck Street, W.
1210	1884, Nov. 10	Edwardes, Charles Bidwell .	The Precincts, Peterborough.
639	1881, Dec. 19	Egerton, Hubert Decimus .	8, New Road, Oxford.
988	1883, Dec. 17	Eggar, James Alfred . . .	9, West Street, Farnham, Surrey.
1173	1884, May 19	Egginton, John.	150, Friar Street, Reading.
530	A. 1879, Jan. 20 / F. 1883, Dec. 3	Eiloart, Frederick Edward .	40, Chancery Lane, W.C.
1434	1888, Jan. 9	Elgar, J. Edward	Crockshard, Wingham, Kent.
1401	1887, Dec. 19	Ellen, Frederick Charles .	The Auction Mart, Andover.
1036	1884, Jan. 14	Elliott, Charles	The Fawns, Ermington, Ivy Bridge, Devon.
577	A. '80, Mar. 15 / F. '87, Nov. 14	Ellis, Ernest Harold . .	132, High Street, Guildford.
880	1882, Dec. 18	Ellis, Henry	62, Chancery Lane, W.C.
885	1883, Feb. 12	Ellis, Richard Adam . . .	49, Fenchurch Street, E.C.
380	1875, Feb. 1	Ellis, Sir John Whittaker, Bart., M.P.	29, Fleet Street, E.C., and 18, Old Broad Street, E.C.
276	1872, Feb. 26	Emmanuel, Barrow. . . .	2, Finsbury Circus, E.C.
898	1883, Feb. 26	Evans, Robert	Eldin Chambers, Wheeler Gate, Nottingham.
388	A. 1874, Feb. 16 / F. 1876, Nov. 27	Evans, William Ernest . .	School Gardens, Shrewsbury.
685	1882, Jan. 16	Eve, John Richard	St. Paul's Square, Bedford, Bedfordshire.
104	1868, Aug. 3	Eve, William	10, Union Court, Old Broad Street, E.C.
1382	1887, Mar. 21	Everard, John Breedon . .	6, Millstone Lane, Leicester.
311	1873, May 5	Eves, George	Uxbridge, Middlesex.

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557	1880, Jan. 5	FAIR, JACOB WILSON . . .	Haigh Hall, Wigan, and 8, Winckley Sq. Preston.
1174	1884, May 19	FAIR, THOMAS	Estate Offices, Lytham, Lancashire.
1062	1884, Jan. 28	FARMER, EDMUND	80, Cheapside, E.C.
540	1879, Mar. 31	FARRAR, JAMES	12, Market Street, Bury, Lancashire.
1321	1886, May 17	FAWKES, ALGERNON	Sudbury, Derby.
1037	1884, Jan. 14	FAYERMAN, GEORGE METCALFE	88, The Parade, Leamington, Warwickshire.
1402	1887, Dec. 19	FENN, JOHN	The Hall, Ardleigh, and 146, High St. Colchester.
565	A. '80, Jan. 19 / F. '87, Mar. 21	FENNING, HERBERT SAMUEL .	St. Paul's Square, Bedford, Bedfordshire.
974	1883, Nov. 12	FERRIS, GEORGE	Milton Manor, Pewsey, Wilts.
831	1882, Dec. 18	FIDDIAN, WILLIAM	98, High Street, Stourbridge.
297	1878, Jan. 27	FIELD, FRANCIS HAYWARD . .	Merton Street, Oxford.
872	1883, Jan. 29	FIELD, JAMES FREDERICK . .	57, Borough High Street, S.E.
1322	1886, May 17	FIELD, WALTER WILLIAM . .	57, Borough High Street, S.E.
1459	1888, Feb. 20	FISHER, EDWARD KNAPP . .	Market Harborough, Leicestershire.
1038	1884, Jan. 14	FLEETWOOD, GEORGE	15, Furnival's Inn, E.C.
1465	1888, Mar. 5	FLETCHER, THOMAS	Dunkenhalgh, Clayton-le-Moors, near Accring
562	1880, Jan. 19	FLOCKTON, THOMAS JAMES . .	15, St. James' Row, Sheffield.
640	1881, Dec. 19	FORREST, ROBERT	Windsor Estate Office, St. Fagans, near Carc
551	1879, Dec. 8	FORSHAW, EDWARD	Basford, Stoke-upon-Trent.
1039	1884, Jan. 14	FOSBERY, WILLIAM THOMAS EXHAM	Warwick.
279	1872, Mar. 11	FOSTER, CHARLES ROLLS . .	54, Pall Mall, S.W.
641	1881, Dec. 19	FOSTER, JOSEPH BURGESS . .	4, Cambridge Street, Plymouth, Devon.
687	1882, Jan. 16	FOULKES, SEPTIMUS GIFFORD .	Tring, Herts.
686	1882, Jan. 16	FOWLER, FREDERICK	St. James' Street, Sheffield.
832	1882, Dec. 18	FOWLER, HENRY	95, Colmore Row, Birmingham.
1403	1887, Dec. 19	FOWLER, RICHARD	118, Colmore Row, Birmingham.
921	1883, April 16	FRANKLIN, THOMAS	Ascot, near Wallingford.
922	1883, April 16	FRANKLIN, WILLIAM TAYLOR .	Ascot, near Wallingford.
1217	1884, Dec. 8	FREUER, WILLIAM	West Rudham, Swaffham, Norfolk.
734	1882, Feb. 13	FRYER, GEORGE	17, Parliament Street, Hull, and Rose V Bishop Wilton, near York.
369	1875, Jan. 18	FRY, GEORGE FREDERICK . .	46, London Road, Dover, Kent.
1063	1884, Jan. 28	FULLER, ERNEST	98, Wimpole Street, W.
750	A. '82, Feb. 13 / F. '87, Nov. 14	FULLER, GEORGE JOHN . . .	85 & 87, Gresham Street, E.C.
1040	1884, Jan. 14	FULLER, HARRY	83, High Street, Croydon.
775	1882, Mar. 13	FURBER, HERBERT	2, Warwick Court, Gray's Inn, W.C.
1064	1884, Jan. 28	FURBER, WILLIAM	2, Warwick Court, Gray's Inn, W.C.
417	1876, Jan. 10	GAIRDNER, EDWARD JAMES . .	27, Southampton Buildings, W.C.
761	1882, Feb. 27	GALE, JOSEPH JOHN	Market Place, Wallingford, Berks.
819	1882, Nov. 13	GALPIN, CHARLES ALEXANDER .	36, Pembroke Street, Oxford.

Dip. No.	*Date of Election and of Transfer.*	FELLOWS.	
820	1882, Nov. 13	GALPIN, JOHN	36, Pembroke Street, Oxford.
55	1868, Jul. 6	GALSWORTHY, FREDERICK THOMAS	11, Waterloo Place, S.W.
735	1882, Feb. 13	GARDINER, EDWARD JAMES . .	110, Great Russell Street, W.C.
127	1868, Sep. 28	GARDINER, WILLIAM JAMES . .	110, Great Russell Street, W.C.
98	A. 1868, Jul. 27 / F. 1883, Nov. 12	GARRARD, ARTHUR . . . . (*Member of Council*)	66, Cannon Street, E.C.
688	1882, Jan. 16	GATER, CALEB WILLIAM . .	Salisbury, Wilts.
935	1883, April 30	GERMAN, GEORGE	Ashby-de-la-Zouch, Leicestershire.
887	1883, Feb. 12	GERMAN, JOHN	Ashby-de-la-Zouch, Leicestershire.
1161	A. '84, May 5 / F. '87, Nov. 14	*GIBB, WILLIAM PASHLEY . .	75, Stamford Street, S.E.
381	1875, Feb. 1	GILBERT, WILLIAM HENRY SAINSBURY	62, Old Broad Street, E.C.
569	1880, Feb. 2	GILLART, RICHARD	Machynlleth, Montgomeryshire.
1466	1888, Mar. 5	GILPIN-BROWN, WILLIAM DUNDAS	Blankney Estate Office, Metheringham, Lincoln.
213	1869, Dec. 6	GIRDWOOD, JAMES	18, Adam Street, Adelphi, W.C.
420	1876, Jan. 24	GLASIER, GEORGE HENRY BROUGHAM	6, Spring Gardens, S.W.
1286	A. '85, Dec. 7 / F. '86, May 17	*GODFREY, ROBERT	Valentine Road, King's Heath, near Birmingham.
989	1883, Dec. 17	GOODCHILD, JOSIAH	81, Finsbury Pavement, E.C.
314	A. '73, May 19 / F. '78, Mar. 11	GORE, SPENCER W.	16, Whitehall Place, S.W.
478	A. '77, Feb. 12 / F. '82, Dec. 18	GOTTO, FREDERICK EDWARD .	Stony Stratford, Bucks.
578	1880, Apr 12	GOULDING, WILLIAM PURDHAM.	41, Moorgate Street, E.C.
370	1875, Jan. 18	GRAHAM, WILLIAM	Victoria Chambers, Newport, Monmouthshire.
1218	1884, Dec. 8	GRAIN, ARTHUR TRESS . . .	2, St. Andrew's Hill, Cambridge.
827	A. '82, Dec. 4 / F. '85, Jan. 12	GRANT, JAMES	Dol-llys Cottage, Llanidloes, Montgomeryshire.
899	1883, Feb. 26	GRATTON, JOHN STERLAND . .	Midland Railway Station, Derby.
1260	1885, Mar. 9	GRAVES, WALTER	Winchester House, Old Broad Street, E.C.
690	1882, Jan. 16	GREEN, JAMES	22, Chancery Lane, W.C.
1188	1884, May 26	GREEN, SAMUEL	28 and 29, St. Swithin's Lane, E.C.
1087	1884, Feb. 11	GRELLIER, HARLEY MAIR . .	6, Queen Anne's Gate, S.W.
371	1875, Jan. 18	GREY, CHARLES GREY . . .	50, Parliament Street, S.W.
433	1876, Mar. 20	GWYTHER, WILLIAM WARLOW	43, Lincoln's Inn Fields, W.C.
347	1874, Mar. 16	HADDOCK, ROLAND	45, High Street, Croydon, Surrey.
619	1881, May 2	HALL, ERNEST	166, Queen Street, Portsea, Hants.
517	1878, Dec. 9	HALL, JOHN GEORGE . . .	1, Masbro' Road, West Kensington, W.
923	1883, April 16	HALL, WALTER	38, Chancery Lane, W.C.
1189	1884, May 26	HALLETT, WILLIAM BROWN. .	11, Queen Victoria Street, E.C., and 278, Holloway Road, N.
691	1882, Jan. 16	HAMILTON, HENRY	64 & 65, Coleman Street, E.C.
1481	1888, Apr. 30	HANCOCK, WILLIAM ST. JOHN HÜ	14, Clifford's Inn, E.C.
1240	1885, Jan. 12	HANNEN, REGINALD ST. JOHN .	Fordingbridge, Salisbury.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	
1245	1885, Jan. 26	Hanson, Amos	35, Church Street, St. Helen's, Lancashire.
642	1881, Dec. 19	Hardcastle, Frederick Henry Appleton	34, Southampton Street, Strand, W.C.
481	A. '77, Mar. 26 / F. '82, Dec. 18	Harding, Edward Ernest .	16, St. Paul's Churchyard, E.C.
363	1875, Jan. 4	Harding, Joseph	49, Lune Street, Preston.
643	1881, Dec. 19	Harding, Sidney Longhurst .	St. Albans, Herts.
482	A. '77, Mar. 26 / F. '82, Dec. 18	Harding, William Daniel, . .	16, St. Paul's Churchyard, E.C.
1482	1888, Apr. 30	Hardy, Richard Thomas Ash	Estate Offices, Marchington, Staffordshire.
1175	1884, May 19	Harman, James Ambrose . .	75, Aldermanbury, E.C.
496	A. 1878, Jan. 28 / F. 1883, Nov. 12	Harrington, George Frederick	16, Abchurch Lane, E.C.
990	1883, Dec. 17	Harris, James	Winchester, Hants.
263	1871, Feb. 27	Hart, William Frederick .	Lambeth Waterworks, Brixton Hill, S.W.
312	1873, May 19	Haslam, Dryland	17, Friar Street, Reading.
1472	1888, Mar. 19	Hawkins, Charles	Downham Market, Norfolk.
644	1881, Dec. 19	Hayward, Henry	Dover, Kent.
1253	1885, Feb. 23	Haywood, Henry	9, West Street, Hereford.
54	1868, Jul. 6	Haywood, William, Lieut.-Colonel	Guildhall, E.C.
1254	1885, Feb. 23	Haywood, William Matthews.	9, West Street, Hereford.
833	1882, Dec. 1	Heard, Herbert	Shepton Mallet, Somerset.
692	1882, Jan. 16	Heaton, George Herbert .	Endon, near Stoke-upon-Trent, Staffordshire
617	1881, Apr. 4	Hebblethwaite, Louis . .	Conservancy Buildings, Hull.
1327	1886, Dec. 6	Hedley, John Hunt . . .	55, John Street, Sunderland.
1088	1884, Feb. 11	Hedley, Robert Wilkin . .	31A, Colmore Row, Birmingham.
250	1871, Jan. 15	Hedley, Thomas Fenwick . .	Sunderland.
620	1881, May 2	Hedley, Thomas Fenwick, Jun.	Sunderland.
1328	1886, Dec. 6	Hendriks, Henry	25, Cannon Street, Birmingham.
1378	1887, Mar. 7	Hepper, John	East Parade, Leeds.
1219	1884, Dec. 8	Herbert, Allan	The Market Place, Andover, Hants.
991	1883, Dec. 17	Heron, William Charles . .	Uxbridge, Middlesex.
1435	1888, Jan. 9	Heskett, William James.	24, King Street, Penrith, Cumberland.
1065	1884, Jan. 28	Higgins, Frederic	Alford, Lincolnshire.
1311	1886, Mar. 22	Hill, William Burrough .	2, Albion Place, Southampton, Hants.
220	1870, Jan. 10	Hilliard, George Bridge .	Chelmsford, Essex.
1388	1887, Apr. 18	Hilton, John	17, Montpelier Row, Blackheath.
671	A. 1881, Dec. 19 / F. 1883, Nov. 12	Hine, George Ernest . . .	5, Waterloo Place, S.W.
900	1883, Feb. 26	Hine, George Thomas . .	Victoria Street, Nottingham.
70	1868, Jul. 13	Hippisley, Edwin	Chamberlain Street, Wells, Somersetshire.
815	1882, May 22	Hitchcox, William . . .	Victoria Chambers, Newport, Monmouthshire
518	1878, Dec. 9	Hobgen, Francis Neale . .	East Street, Chichester.
888	1883, Feb. 12	Hobson, Frederick William .	20, Coleman Street, E.C.
519	1878, Dec. 9	Hodson, George	Town Hall, Loughborough.
793	1882, Apr. 24	Holbeche, Robert Neville .	21, Bennett's Hill, Birmingham.

p. o.	Date of Election and of Transfer.	FELLOWS,	
57	1874, Nov. 16	HOLDEN, JOHN	64, Cross Street, Manchester.
55	1884, May 5	HOLIDAY, FREDERICK DEAN .	Bicester, Oxfordshire.
72	1885, Nov. 9	HOLME, JOHN	Owlet Ash, Milnthorpe, Westmoreland.
93	1882, Jan. 16	HOLMES, JAMES	23, Delamere Street, Ashton-under-Lyne.
94	1882, Apr. 24	*HORNE, WILLIAM EDGAR . .	84, Basinghall Street, E.C., and 17, Great George Street, S.W.
90	1887, May 9	HORNOR, CHARLES JARED . .	Queen Street, Norwich.
91	1887, May 9	HORNOR, FRANCIS	Queen Street, Norwich.
75	1885, Dec. 7	HORSEY, FREDERICK . . .	11, Billiter Square, E.C.
11	1868, Jun. 15	HORSEY, THOMAS	11, Billiter Square, E.C.
74	1869, Feb. 22	HORSFALL, RICHARD	Halifax, Yorkshire.
45	1881, Dec. 19	HOVENDEN, THOMAS HENRY .	181, Bishopsgate Street Without.
171	A. '69, Feb. 8 / F. '83, Mar. 12	HUBBERSTY, HENRY ALFRED .	Buxton, Derbyshire.
86	1883, Apr. 30	HUDSON, ARTHUR BYRNE . .	19, Bennet's Hill, E.C.
118	1884, Mar. 10	HUDSON, JAMES	Lowther, Penrith, Cumberland.
128	1868, Sep. 28	HUDSON, WILLIAM	Hope Lodge, 181, Grove Lane, Camberwell, and 19, Bennet's Hill, E.C.
776	1882, Mar. 13	HULL, CHARLES	Euston Station, London, N.W.
175	1869, Feb. 22	HUMPHREYS, CHARLES . . .	6, Crosby Square, Bishopsgate Street Within, E.C.
627	1881, Dec. 5	HUMPHREYS, HENRY . . .	Woodhouse, Loughborough, Leicestershire.
12	1868, Jun. 15	HUNT, SIR HENRY ARTHUR, C.B.	45, Parliament Street, S.W.
353	1874, May 11	HUNT, HENRY ARTHUR, JUN. .	45, Parliament Street, S.W.
181	1869, Mar. 8	HUNT, JOSIAH	6, Queen Anne's Gate, S.W.
326	1874, Jan. 19	HUSKINSON, WILLIAM LAMBE .	The Manor House, Epperstone, Nottingham.
220	1884, Dec. 8	HUSSEY, FRANK TOOZE . . .	The Grove, Cheddon Fitzpaine, Taunton, Somerset.
477	1888 Apr. 16	HUXLEY, WALTER FREEMAN .	29, John Street, Bedford Row, W.C.
563	1880, Jan. 19	I'ANSON, EDWARD BLAKEWAY .	7A, Laurence Pountney Hill, E.C.
137	1884, Apr. 21	INGE, CHARLES HENRY . . .	Broom Leasoe, Whittington, Lichfield.
305	A. '73, Feb. 10 / F. '82, Jan. 16	INGRAM, WALTER FIELDE . .	Firle, Lewes, Sussex.
834	1882, Dec. 18	INMAN, MARSHALL NISBET .	7, Bedford Row, W.C.
835	1882, Dec. 18	INNOCENT, CHARLES JOHN .	Sheffield.
570	1880, Feb. 16	JACKSON, CHARLES	25, Brazennose Street, Manchester.
209	1869, Jul. 26	JACKSON, FREDERICK. . . .	Nottingham.
1404	1887, Dec. 19	JACKSON, WILLIAM TRESS . .	117, High Street, Sittingbourne.
1302	1886, Jan. 25	JEANS, MARK.	Marlborough, Wilts.
736	1882, Feb. 13	JENKINSON, WILLIAM WILBERFORCE	6, Moorgate Street, E.C.
992	1883, Dec. 17	JEUDWINE, WILLIAM WYNNE .	Chesterfield.
963	A. '83, May 25 / F. '85, Jan. 26	*JOHNSON, HENRY	35, Coleman Street, E.C.

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195	A. '69, Apr. 5 / F. '78, Feb. 25	JONAS, HENRY	4, Whitehall, S.W.
95	1868, Jul. 27	JONAS, JOHN CARTER . . .	27, Market Hill, Cambridge.
1265	1885, Apr. 20	JONES, CHARLES	Normanhurst, Ealing.
777	1882, Mar. 13	JONES, CHARLES FREDERICK .	Eldon Chambers, 30, Fleet Street, E.C.
964	A. '83, May 25 / F. '86, Dec. 6	*JONES, HENRY ARTHUR . .	53, Maida Vale, W.
308	1873, Apr. 21	JONES, HENRY PARR . . .	Portway House, Warminster.
646	1881, Dec. 19	JONES, JAMES WILLIAM . . .	54, Caledonian Road, Leeds.
1349	1887, Jan. 10	JONES, WALTER BUTLER CLOUGH	Mynydd, Elnyfed, Criccieth, North Wales.
1467	1888, Mar. 5	JOSEPH, DELISSA.	17 and 18, Basinghall Street, E.C.
1106	1884, Feb. 25	JOYCE, JOHN HALL	Blackfordby, near Burton-on-Trent.
1460	1888, Feb. 20	JUDD, FRANCIS SAVILE HARRY.	Melchbourne, Bedford.
993	1883, Dec. 17	JURD, WILLIAM	10, Oxford Street, Southampton
412	A. '75, Dec. 11 / F. '87, Mar. 23	KAYE, JOHN EDWARD . . .	Grove Hall, Wakefield, Yorkshire.
1190	1884, May 26	KEDGLEY, CHARLES	Hibernia Chambers, London Bridge, S.E.
580	1880, Nov. 8	KEIRLE, ROBERT	111, Victoria Street, S.W.
975	1883, Nov. 12	KEMSLEY, JOSEPH WILLIAM . .	Woodford, Essex.
1191	1884, May 26	KENT, GEORGE EDWARD . .	Glendore, Clarendon Road, Southsea, Hants
873	1883, Jan. 29	KING, FRANK HULME . . .	Horsham, Sussex.
1192	1884, May 26	KING, HENRY	Stourbridge, Worcestershire.
1193	1884, May 26	KING, THOMAS	Pembroke House, Portsmouth, Hants.
191	1869, Mar. 22	KING, SIR WILLIAM DAVID . .	Lynwood, Waverley Road, Southsea, Hants
808	1882, May 8	KINGSTON, SAMUEL	Spalding, Lincoln.
129	1868, Sep. 28	KNOLLYS, JAMES EDWARD . .	Fitzhead Court, Taunton, Somerset.
264	1871, Feb. 27	KNOWLES, WILLIAM	Albion Chambers, King Street, Gloucester.
107	1868, Aug. 3	LAMBERT, WILLIAM	1, New Broad Street, E.C.
1398	1887, Dec. 5	LANCASTER, CHARLES HOLLAND	York Buildings, 14, Dale Street, Liverpool.
446	1876, Apr. 24	LANE, CECIL NEWTON . . .	Whiston Hall, Shifnal, Salop.
762	1882, Feb. 27	LANGRIDGE, GEORGE. . . .	Public Rooms, Tunbridge Wells, Kent.
600	1881, Jan. 24	LANSDOWN, GEORGE	5 & 7, Warwick Street, Charing Cross, S.W
145	1868, Nov. 9	LAURANCE, JOHN	Sexton Barns, Peterboro'.
1089	1884, Feb. 11	LAW, EDMUND	29, Abington Street, Northampton.
513	1878, Nov. 11	LEANE, GEORGE HENRY . .	21, Queen Anne's Gate, S.W.
1461	1888, Feb. 20	LEANING, JOHN	11, Poultry, E.C.
60	A. '68, July 6 / F. '82, May 8	LEE, CHARLES WILLIAMS . .	8, Adelphi Terrace, W.C.
332	1874, Feb. 2	LEE, FREDERICK.	6, Great College Street, S.W.
1090	1884, Feb. 11	LEE, WILLIAM	143½, High Street, Guildford, Surrey.
229	1870, Feb. 7	LEES, JOHN	Reigate, Surrey.
836	1882, Dec. 18	LEMON, JAMES	Southampton.
717	1882, Jan. 30	LEPPER, JOHN HARRAGE . .	Town Hall, Bromley, Kent.
1156	1884, May 5	LE ROSSIGNOL, FRANCIS . .	1, Gresham Buildings, Basinghall Street, E

p.	Date of Election and of Transfer.	FELLOWS.	
76	1884, May 19	LETHBRIDGE, WALTER . . .	1, Leigham Villas, Plymouth.
47	1881, Dec. 19	LIGHTFOOT, FRANCIS LOWRY .	3, Old Palace Yard, S.W.
01	1883, Feb. 26	LIGHTFOOT, HENRY LE BLANC	Lower Lawn, Tisbury, Salisbury.
61	1887, Jan. 24	LINES, RICHARD SAMUEL . .	103, Hammersmith Road, W.
05	1887, Dec. 19	LISTER-KAYE, CHARLES WILKINSON	Osberton, Worksop, Notts.
37	1882, Feb. 13	LITTLE, WILLIAM CUTLACK . .	Stag's Holt, March, Cambridgeshire.
49	A. '83, May 21 / F. '88, Apr. 16	LITTLE, WILLIAM DAVIS . .	Middleton Stoney, Bicester, Oxon.
48	1881, Dec. 19	LOCK, WILLIAM HENRY . . .	Instow, North Devon.
93	1875, Mar. 15	LOFTS, HENRY	130, Mount Street, Grosvenor Square, W.
38	1884, Apr. 21	LOOKER, JOHN	High Street, Huntingdon.
96	1887, Nov. 14	LOVEGROVE, HENRY	26, Budge Row, E.C.
24	1876, Feb. 7	LOVEJOY, ALFRED	35, Bucklersbury, E.C.
38	1882, Feb. 13	LOWE, CHARLES HARLOWE . .	Hampstead Vestry Hall, Haverstock Hill, N.W.
25	1876, Feb. 7	MCCALL, GEORGE	33, Victoria Chambers, Market Place, Blackburn.
61	1869, Jan. 25	MANN, CHARLES JOHN . . .	29, Great George Street, S.W.
73	1875, Jan. 18	MANN, ROBERT WILKS . . .	12, Lower Grosvenor Place, S.W.
62	1887, Jan. 24	MARGETTS, JOHN WILLIAM . .	12, High Street, Warwick.
92	1869, Mar. 22	MARR, JAMES	8, Adam Street, Adelphi. W.C.
26	A. '81, Nov. 14 / F. '84, Nov. 24	MARSHALL, LIONEL HASLER .	Chippenham, Wilts.
76	1883, Nov. 12	MARTIN, GEORGE DENNIS . .	124-127, Mansion House Chambers, E.C.
34	1876, Mar. 20	MARTIN, GILSON	Chatsworth, Chesterfield.
64	1875, Jan. 4	MARTIN, HOWARD	27, Chancery Lane, W.C., and Bolney Grange, Havelock Road, Croydon.
30	1870, Feb. 7	MARTIN, JAMES . . . . . *(Member of Council)*	Wainfleet, Lincolnshire.
04	A. '82, Jan. 16 / F. '84, Jan. 28	MARTIN, WALTER	Wainfleet, Lincolnshire.
91	1884, Feb. 11	MASON, WILLIAM ARTHUR . .	31A, Colmore Row, Birmingham.
03	1875, May 10	MASON, WILLIAM LUDLAM . .	The High Holme, Louth, Lincolnshire.
96	1882, Jan. 16	MASTERMAN, GEORGE HUGHES .	35, Coleman Street, E.C.
94	1883, Dec. 17	MATHEWS, GEORGE SPENCER .	15, Waterloo Street, Birmingham.
95	1883, Dec. 17	MATHEWS, JOSEPH DOUGLAS .	11, Dowgate Hill, E.C.
39	1868, Jun. 15	MATHEWS, WILLIAM	15, Waterloo Street, Birmingham.
66	1884, Jan. 28	MATTHEWS, WILLIAM . . .	8, Delahay Street, S.W.
99	1887, Dec. 5	MAUDE, RAYMOND WILLIAM . .	22, Great George Street, S.W.
18	1882, Jan. 30	MAYLARD, CHARLES GRASON .	6, Great Queen Street, S.W.
37	1882, Dec. 18	MAYNARD, EDWARD	College Chambers, The Green, Richmond, Surrey.
52	1879, Dec. 8	MELLERSH, ALFRED WILLIAM .	Godalming, Surrey.
79	1887, Mar. 7	MENZIES, WILLIAM	Egham, Surrey.
64	1882, Feb. 27	MESSENGER, WILLIAM HARRY .	Hullbrook, Guildford, Surrey.
23	1884, Dec. 8	*MICHELMORE, ALFRED . . .	Berry House, Totnes, Devon.
71	1887, Feb. 21	MILES, MATTHEW	55, Chancery Lane, W.C.

Dip. No.	*Date of Election and of Transfer.*	FELLOWS.	
697	1882, Jan. 16	MILLAR, CHARLES WILLIAM . .	14, Grafton Street, W.
1177	1884, May 19	MILLS, SAMUEL MEALING . .	Orford Hill, Norwich.
1305	1886, Feb. 22	MILLS, WILLIAM EDWARD . .	49, Hamilton Square, Birkenhead.
477	1877, Feb. 12	MINTER, WILLIAM	81, Bondgate, Darlington.
1194	1884, May 26	MONIER-WILLIAMS, STANLEY FAITHFULL	88, Onslow Gardens, Queen's Gate, S.W.
1165	A. '84, May 5 F. '88, May 14	*MOORE, HAROLD EDWARD . .	1, Essex Street, Strand, W.C., and Bore near Chelmsford, Essex.
1443	1888, Jan. 23	MORRIS, EDWARD HENRY . .	Chirbury, Salop.
1119	1884 Mar. 10	MORRIS, HERBERT	Lewes, Sussex.
456	1876, Nov. 13	MORRIS, JOHN WARRINGTON .	Thorner's Chambers, Ingram Street, Fench Street, E.C.
607	1881, Feb. 7	MORTIMER, JOHN CAMDEN . .	5, Great Queen Street, S.W.
778	1882, Mar. 13	MULLETT, FREDERICK AUGUSTUS	Albion House, Hyde Park Square, W.
765	1882, Feb. 27	MUNRO, PHILIP	2, St. Stephen's Chambers, New Baldwin St Bristol.
520	1878, Dec. 9	MURPHY, EDMUND	Dunfanaghy, Letterkenny, Ireland.
1406	1887, Dec. 19	MURRAY, GILBERT	Elvaston Estate Office, Derby.
996	1883, Dec. 17	MURRAY, ROBERT LITTLE . .	15, Cheapside, Bradford.
809	1882, May 8	MYNORS, WALTER CHARLES TOWERS	Little Ingestre, Stafford.
164	A. '69, Jan. 25 F. '82, Mar. 13	NASH, ALFRED JAMES . . .	Farnham, Surrey.
349	1874, Apr. 13	NAYLOR, ARTHUR MILLINGTON .	3, Old Palace Yard, S.W.
139	1868, Nov. 2	NEALE, CHARLES JAMES . .	High Oakham, Mansfield, Notts.
551	1879, Feb. 3	NEAME, FREDERICK, JUN. . .	Macknade, Faversham, Kent.
795	1882, Apr. 24	NEATE, ARTHUR WEBB . . .	Hungerford, and Market Place, Newbury, B
1314	1886, May 3	NEVE, HERBERT	Hole Park, Rolvenden, Kent.
414	A. '75, Dec. 13 F. '82, Feb. 27	NEVILE, HENRY WILLIAM . .	Broughton Estate Office, 8, John Dalton St Manchester.
1276	1885, Dec. 7	NEWMAN, ARTHUR HARRISON .	19A, Tooley Street, London Bridge.
289	1872, Dec. 9	NEWMAN, FRANCIS	Ryde, Isle of Wight.
566	A. '80, Jan. 19 F. '86, Apl. 12	NEWMARCH, HENRY CHARLES .	35, Lincoln's Inn Fields, W.C.
1041	1884, Jan. 14	NEWSAM, SAMUEL WATERHOUSE	13, Bond Street, Leeds.
739	1882, Feb. 13	NEWSON, HARRY CARSS . . .	57, Lincoln's Inn Fields, W.C.
374	1875, Jan. 18	NICHOLS, DANIEL CUBITT . .	3, Howard Street, Strand, W.C.
401	1875, Apr. 26	NOCKOLDS, MARTIN	Saffron Walden, Essex.
1264	1885, Mar. 23	NOEL, BYRON BRUCE . . .	East Horsley, Leatherhead.
435	1876, Mar. 20	NORMAN, JAMES MAURICE . .	Uxbridge, Middlesex.
182	1869, Mar. 8	NORMAN, WILLIAM	8, Spring Gardens, S.W.
85	1868, Jul. 20	NORTH, GEORGE	Palace Chambers, 9, Bridge Street, S.W.
958	1883, May 25	*NORTH, GEORGE FREDERIC . .	Wroxton Estate Office, near Banbury, Oxo
255	1871, Feb. 13	NOTLEY, RICHARD ALBERT . .	80, Cornhill, E.C.
698	1882, Jan. 16	NOTLEY, ROBERT PLEDGE . .	35, Bucklersbury, E.C.
676	A. '81, Dec. 19 F. '87, Feb. 7	NOTTAGE, WILLIAM GRIGGS .	High Street, Windsor.

ship. No.	*Date of Election and of Transfer.*	FELLOWS.	
59	1868, Jul. 6	OAKLEY, CHRISTOPHER . . . (*Member of Council*)	10, Waterloo Place, S.W.
486	1877, Apr. 30	OAKLEY, WILLIAM	10, Waterloo Place, S.W.
650	1881, Dec. 19	OBORNE, ALFRED WILLIAM . .	9, Moorgate Street, E.C., and Wimbledon Park, Surrey.
468	1888, Mar. 5	OLDROYD, LINLEY	5, Oxford Place, Leeds.
306	1886, Feb. 22	ORGILL, JOHN BERWICK . .	21, Hart Street, Bloomsbury Square, W.C.
183	1869, Mar. 8	OWEN, THOMAS RULE . . .	High Street, Haverfordwest, Pembrokeshire.
1042	1884, Jan. 14	PAGE, ROBERT	9, Denman Street, London Bridge, S.E.
406	A. '75, Nov. 8 / F. '81, April 4	PAIN, COARD SQUAREY . . .	14, North John Street, Liverpool, and 5, Victoria Street, Westminster, S.W.
315	1886, May 3	PARK, WILLIAM PHILIP . .	22, Guildhall Street, Preston, Lancashire.
1383	1887, Mar. 21	PARKER, CHARLES ALFRED .	43, Finsbury Circus, E.C., and Woodham Mortimer Place, Maldon, Essex.
1269	1885, May 18	PARKER, JOHN	Mansion House, Hereford.
567	A. '80, Jan. 19 / F. '88, Jan. 9	PARKER, THE HON. CECIL THOMAS	Eccleston, Chester.
628	A. '81, Dec. 5 / F. '84, Nov. 24	PARKIN, JOHN ROBERT . . .	Idridgehay, near Derby.
865	1883, Jan. 15	PARMETER, FRANK	South View House, West Parade, Newcastle-on-Tyne.
1195	1884, May 26	PARNELL, ROBERT	Oundle, Northamptonshire.
910	1883, Mar. 12	PARR, SAMUEL	New Broad Street House, E.C.
288	1872, Dec. 9	PARSONS, HENRY.	Misterton, Crewkerne, Somerset.
405	1875, Nov. 8	PATERSON, ROBERT	10, Hanover Street, Edinburgh.
601	1881, Jan. 24	PATTISSON, JACOB LUARD . .	6, Sussex Gardens, Hyde Park, W.
967	A. '83, May 25 / F. '88, May 14	*PAULL, ALAN	6, Quality Court, Chancery Lane, W.C.
1157	1884, May 5	PAXTON, EDWARD HAYTON . .	Bicester, Oxfordshire.
583	1880, Dec. 13	PAYNE, ALEXANDER	4, Storey's Gate, S.W.
719	1882, Jan. 30	PAYNE, FREDERICK	Town Hall, Bromley, Kent.
1363	1887, Jan. 24	PECK, HENRY WILLIAM. . .	6, Poultry, E.C.
1270	1885, May 18	PECK, WILLIAM ROLAND . .	69, Lombard Street, E.C.
889	1883, Feb. 12	PEEBLES, ALEXANDER . . .	Guildhall, E.C.
21	1868, Jun. 15	PENFOLD, JOHN WORNHAM . . (*Honorary Secretary*)	29, Great George Street, S.W.
452	1876, May 8	PEPPERCORN, JOHN HUTCHINSON	Manor House, Eaton Socon, St. Neots.
1252	1885, Feb. 9	*PETO, JAMES WINDER . . .	6, Market Place, Reading, Berks.
428	1876, Feb. 21	PHILLIPS, FREDERICK HAMILTON	Glamorganshire County Roads Surveyor's Office, Ely, near Cardiff.
1043	1884, Jan. 14	PICKERING, WILLIAM CLOVES .	Ivy House, Whitford, Holywell, N. Wales.
651	1881, Dec. 19	PICKSTOCK, JOHN	Castle Hill, Winchester, Hants.
968	A. '83, May 25 / F. '86, Dec. 6	*PILDITCH, PHILIP EDWARD .	17, Parliament Street, S.W.
1196	1884, May 26	POLLARD, HARRY EMANS . .	14, Duke Street, Adelphi, W.C.
997	1883, Dec. 17	POPPLEWELL, WILLIAM WILLOTT	Victoria Chambers, Southampton Buildings, W.C., and Imperial Chambers, Derby.

Dip. No.	*Date of Election and of Transfer.*	FELLOWS.	
699	1882, Jan. 16	PORTER, ALFRED	109, Grange Road, Bermondsey, S.E.
558	1880, Jan. 5	POTTS, JOSEPH, JUN. . . .	North Cliff, Roker, Sunderland.
224	1870, Jan. 24	POUNDLEY, JOHN EDWARD . .	Black Hall, Kerry, Montgomeryshire.
487	1877, May 14	POWELL, EVAN	Broomcliffe, Llanidloes, Montgomeryshire.
342	A. '74, Feb. 16 F. '80, Nov. 22	POWELL, REGINALD HENRY . .	St. Swithun's Lane, High Street, Lewes, Sus
490	1877, Dec. 10	POWNALL, GEORGE HARRY . .	29, Parliament Street, S.W.
1273	1885, Nov. 9	PUNCHARD, FREDERICK . .	Underley Estate Office, Kirkby Lonsdale, W moreland.
1224	1884, Dec. 8	PYM, GEORGE EDWIN . . .	Doods, Reigate, Surrey.
796	1882, Apr. 24	RABY, JOSEPH WALKER . . .	78, Cross Street, Manchester.
625	1881, Nov. 14	RABY, WILLIAM	78, Cross Street, Manchester.
1462	1888, Feb. 20	RAIKES, COLONEL GEORGE WHITTINGTON	Ragley Estate Office, Alcester, Redditch.
902	1883, Feb. 26	RAWLENCE, ERNEST ALFRED .	Tower House, Salisbury.
231	1870, Feb. 7	RAWLENCE, JAMES	Salisbury, Wilts.
134	1868, Oct. 26	RAYNBIRD, HUGH EDWARD . .	Basingstoke, Hants.
1139	1884, Apr. 21	READ, GEORGE HUNTLY . .	27, Albany Street, N.W.
839	1882, Dec. 18	REDDALL, DAVID GADSDEN. .	10, South Street, Finsbury, E.C.
584	1880, Dec. 13	REES, WILLIAM ANDREW . .	7, Cornhill, E.C.
544	1879, Apr. 28	REES, WILLIAM GEORGE . .	Holly House, Newport, Monmouthshire.
1044	1884, Jan. 14	REEVES, BENJAMIN AUSTEN. .	27, Chancery Lane, W.C.
514	1878, Nov. 11	REID, PATRICK SANDEMAN . .	20, John Street, Adelphi, W.C.
937	1883, April 30	RENDELL, ARTHUR STEPHEN .	Homefield, Coffinswell, Newton Abbot.
172	A. '69, Feb. 8 F. '82, Feb. 13	REX, WILLIAM	36, Chancery Lane, W.C., and 311, Ken Town Road, N.W.
459	A. '76, May 8 F. '81, Dec. 6	RICH, ROBERT	Didcot, Berks.
890	1883, Feb. 12	RICHARDS, ALFRED	8, New Broad Street, E.C.
1197	1884, May 26	RICHARDS, HENRY BRINLEY .	20, Coleman Street, E.C.
461	1876, Dec. 18	RICHARDSON, JOHN	Methley Park, Leeds.
303	1873, Feb. 10	RICKMAN, THOMAS MILLER (*Member of Council*) .	8, Montague Street, Russell Square, W.C.
914	1883, April 2	RIDDLE, FREDERICK HENRY BRIMBLE	15, Dornton Road, Balham, S.W.
724	A. '82, Jan. 30 F. '83, Jan. 29	RIGDEN, HENRY WILLIAM . .	Salisbury, Wilts.
1444	1888, Jan. 23	RIGDEN, JOHN LAMBE . . .	Natal Government Buildings, Maritzburg, N South Africa, and Belle Vue, Salisbury.
120	1868, Aug. 17	ROBERTS, RICHARD	42, New Broad Street, E.C.
1445	1888, Jan. 23	ROBINS, EDWARD	Crosby Hall Chambers, E.C.
72	1868, Jul. 13	ROBINS, EDWARD COOKWORTHY.	46, Berners Street, Oxford Street, W.
603	1881, Jan. 24	ROBINS, WILLIAM HENRY . .	82A, New Street, Birmingham.
1350	1887, Jan. 10	ROBINSON, CHARLES EDWARD .	36, Coleman Street, E.C.
618	1881, Apr. 4	ROBINSON, HENRY	7, Westminster Chambers, S.W.
810	1882, May 8	ROBINSON, NATHANIEL WISHART	Marlowes, Hemel Hempstead, Herts.

Mbp. No.	Date of Election and of Transfer.	FELLOWS.	
291	1872, Dec. 9	ROBSON, EDWARD ROBERT . .	Palace Chambers, 9, Bridge Street, S.W., and 2, The Paragon, Blackheath, S.E.
453	1888, Feb. 6	RODERICK, JOHN	2, Temple Row West, Birmingham.
302	1881, Jan. 24	ROGERS, EDWARD PHIPPARD GEORGE	18, Borough High Street, S.E.
325	1882, Dec. 4	ROGERS, ERNEST EDWARD . .	1, Prince of Wales Road, Norwich.
225	1884, Dec. 8	ROGERS, WILLIAM BENNETT .	78, Gloucester Road, South Kensington, S.W.
361	A. '74, Dec. 7 / F. '76 Jan. 24	ROLLESTON, JOHN FOWKE LANCELOT	Grey Friars, Leicester.
344	A. '86, Dec. 6 / F. '87, Nov. 14	*§ROODS, ALFRED	The School Board for London, Victoria Embankment, W.C.
280	A. '83, Nov. 12 / F. '87, Jan. 10	ROPER, WILLIAM.	Lansdowne Place, Tunbridge Wells, Kent.
483	1888, Apr. 30	ROSE, THOMAS	13, Bank Street, Norwich.
125	1868, Aug. 31	ROSSER, WILLIAM	Llanelly, Carmarthen.
507	1878, Apr. 8	ROWE, RICHARD REYNOLDS . .	Park House, Cambridge.
315	A. '73, Dec. 8 / F. '75, Nov. 8	RUSHWORTH, EDMUND WALTER	22, Savile Row, W.
261	1885, Mar. 9	RUTHERFORD, JAMES. . . .	Kirk-leatham, Redcar, Yorkshire.
998	1883, Dec. 17	RUTLEY, CHARLES	11, Dowgate Hill, E.C.
466	A. '76, Dec. 8 / F. '80, Nov. 8	RYDE, ARTHUR LYON . . .	29, Great George Street, S.W.
16	1868, Jun. 15	RYDE, EDWARD . . . . (*Past-President*)	29, Great George Street, S.W.
421	1876, Jan. 24	SADLER, GEORGE WILLIAM . .	467, High Street, Cheltenham.
256	1871, Feb. 13	ST. QUINTIN, PERRY. . . .	37, Threadneedle Street, E.C.
436	1888, Jan. 9	SAMPLE, THOMAS	Bothal Castle, near Morpeth, Northumberland.
384	1887, Mar. 21	SAMUEL, WILLIAM JOHN . .	Newport Pagnell, Bucks.
397	1875, Apr. 26	SANDAY, GEORGE HENRY . .	Langdale Lodge, Adkin Road, Clapham Park, S.W.
741	1882, Feb. 13	SANDERS, THOMAS	Cheltenham.
458	1876, Nov. 27	SANDY, HENRY	Newport Road, Stafford.
167	1869, Feb. 8	SAUNDERS, CECIL GEORGE . .	5, Agar Street, Strand, W.C.
177	1869, Feb. 22	SAUNDERS, EDWARD	6, Bishopsgate Street Without, E.C.
121	1868, Aug. 17	SAVILL, ALFRED	39, New Broad Street, E.C., and Chigwell, Essex
526	1879, Jan. 6	SCARGILL, ALFRED	11, East Parade, Sheffield.
383	1874, Feb. 2	SCARTH, WILLIAM T. . . .	Raby Castle, Darlington.
385	1887, Mar 21	SCOTT, HENRY LACY . . .	Bury St. Edmund's, Suffolk.
629	A. '81, Dec. 5 / F. '82, Apr. 24	SCOVELL, JOHN	Batsford, Moreton-in-the-Marsh, Gloucestershire.
392	1875, Mar. 1	SEARLE, FRANCIS WILLIAM . .	Ferndell, Bush Hill Park, Enfield.
534	1879, Mar. 3	SELBY, CHARLES FREDERIC . .	19, Queen Anne's Gate, S.W.
823	A. '82, Nov. 13 / F. '86, May 3	SEYMOUR, RICHARD ARTHUR HAMILTON	Preston Hall Farm, Aylesford, Kent.
390	1875, Mar. 1	SHACKEL, GEORGE	12, The Forbury, Reading, Berks.
431	1876, Mar. 6	SHAW, JOHN . . . . . (*Member of Council.*)	College Place, Derby.

§ Driver Prizeman, 1886.

Dip. No.	*Date of Election and of Transfer.*	FELLOWS.	
999	1883, Dec. 17	SHEPPARD, OSBORNE	Glynelydach, Neath.
1316	1886, May 3	SHERRIN, JOHN LESTER . .	80, Coleman Street, E.C.
706	A. '82, Jan. 16 F. '87, Dec. 5	SHERWIN, JOSEPH HENRY . .	16, Whitehall Place, S.W.
474	A. '77, Jan. 29 F. '80, Nov. 8	SHOPPEE, CHARLES HERBERT .	22, John Street, Bedford Row, W.C.
74	1868, Jul. 13	SHOPPEE, CHARLES JOHN . . *(Vice-President)*	61, Doughty Street, W.C.
604	A. '81, Jan. 24 F. '83, May 21	*SILCOCK, THOMAS BALL. . .	Octagon Chambers, Milsom Street, Bath.
720	1882, Jan. 30	SIMMONDS, FREDERICK . . .	Parkside, Englefield Green, Surrey.
903	1883, Feb. 26	SIMMS, WALTER	27, Albany Street, N.W.
1486	1888, May 14	SIMPSON, ROBERT THOMAS .	Horsecroft, Bury St. Edmunds, Suffolk.
282	1872, Apr. 22	SLATER, GEORGE.	Canterbury.
598	A. '80, Dec. 12 F. '83 April, 30	SMALLPEICE, GEORGE BAKER .	9 and 10, Tokenhouse Yard, E.C.; and Guildl
135	1868, Oct. 26	SMELLIE, THOMAS DAVIES . .	209, St. Vincent Street, Glasgow.
122	1868, Aug. 17	SMITH, CHARLES BOVILL . .	Wickham, Hants.
238	A. '70, Mar. 21 F. '78, Mar. 11	SMITH, CHARLES JOHN . .	16, Whitehall Place, S.W.
1484	1888, Apr. 30	SMITH, FRANK	37, Cannon Street, Birmingham.
454	A. '76, May 8 F. '81, Dec. 6	SMITH, HENRY	8, John Street, Adelphi, W.C.
400	A. '75, Apr. 26 F. '81, Jan. 24	SMITH, HENRY HERBERT . .	Chippenham, Wilts, and 7, Whitehall Place,
1487	1888, May 14	SMITH, JOHN THOMPSON . .	Tattondale, Knutsford, Cheshire.
955	1883, May 25	SMITH, JOSEPH	15, Cheapside, Bradford, Yorkshire.
1256	1885, Feb. 23	*SMITH, WILLIAM	Upper Farm, Abbots Salford, Evesham, Worces shire.
708	A. '82, Jan. 16 F. '86, Mar. 8	SMITH, WILLIAM CHARLES HENRY ALSTON	15, Waterloo Street, Birmingham.
1372	1887, Feb. 21	SMYTH-RICHARDS, GEORGE COBLEY	Wistlandpound, and 6, Castle Street, Barnst Devon.
146	1868, Nov. 9	SOUTHWELL, CHARLES JOSIAH .	9, Whitehall Place, S.W.
96	1868, Jul. 27	SPACKMAN, HENRY	6, Terrace Walks, Bath.
1107	1884, Feb. 25	SPURLING, HENRY	81, Prince's Street, Ipswich, Suffolk.
42	1868, Jun. 15	SQUAREY, ELIAS PITTS . . . *(Vice-President)*	The Moot, Downton, Salisbury, and 22, G George Street, S.W.
1067	1884, Jan. 28	SQUIRE, RICHARD	2, Pont Street, Belgrave Square, S.W.
1277	1885, Dec. 7	STACEY, HARRIE	Station Road, Redhill, Surrey.
1268	1885, May 4	STAFFORD, ROBERT BARRY . .	83, High Street, Bedford.
840	1882, Dec. 18	STANGER, CALEB.	21, Finsbury Pavement, E.C.
1437	1888, Jan. 9	STANLEY-DODGSON, STANLEY DICKINSON	Estate Office, Somerset House, Whiteha Cumberland.
43	1868, Jun. 15	STATTER, THOMAS	Standhall, Whitefield, Manchester.
469	1877, Jan. 15	STENNING, ALEXANDER ROSE .	121, Cannon Street, E.C.
529	A. '79, Jan. 6 F. '82, Nov. 13	STEPHENSON, CHARLES WILLIAM	38, Parliament Street, S.W.
1198	1884, May 26	STEVENS, WILLIAM CHARLES .	22, Savile Row, W.
97	1868, Jul. 27	STEWARD, HERBERT THOMAS .	45, Parliament Street, S.W.
938	1883, April 30	STOCK, HENRY	9, Denman Street, London Bridge, S.E.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	
654	1881, Dec. 19	STONER, ALFRED	8, Blomfield Street, E.C.
108	1884, Feb. 25	STRUDWICK, HAYWARD JAMES .	Montague Chambers, 10 & 11, Bedford Street, Strand, W.C.
655	1881, Dec. 19	STRUDWICK, WILLIAM HENRY .	14, Parliament Street, S.W.
488	1888, May 14	STUDDY, THOMAS EDWARD . .	Stockbridge, Hants.
87	1868, Jul. 20	STURGE, ROBERT FOWLER . .	34, Corn Street, Bristol.
18	1868, Jun. 15	STURGE, WILLIAM . . . . (*Past-President*)	34, Corn Street, Bristol.
278	1885, Dec. 7	SWETTENHAM, WILLIAM NORMAN	The Old School House, Shrewsbury.
257	1885, Feb. 23	SWORDER, HUGH	High Street, Epping, Essex.
068	1884, Jan. 28	SYMONS, PHILIP	Fore Street, Totnes. Devon.
317	1886, May 3	TANNER, HENRY	H.M. Office of Works, Whitehall Place, S.W.
1092	1884, Feb. 11	TANNER, JAMES MELHUISH . .	Wembworthy, North Devon.
233	A. '70, Feb. 7 / F. '78, Jan. 28	TATHAM, GEORGE HENRY . .	23, Southampton Buildings, Chancery Lane, W.C.
864	1887, Jan. 24	TAYLOR, EDWARD FERGUSSON .	New Barnet, Herts, and 55, Chancery Lane, W.C.
678	A. '81, Dec. 19 / F. '87, Feb. 7	TAYLOR, JOHN WILLIAM . .	33, Westgate Road, Newcastle-on-Tyne.
1069	1884, Jan. 28	TEWSON, EDWARD	80, Cheapside, E.C.
859	A. '82, Dec. 18 / F. '85, Jan. 12	TEWSON, EDWARD ARTHUR. .	80, Cheapside, E.C.
924	1883, April 16	THEOBALD, HENRY WELLS DEWHURST	110, Great Russell Street, W.C.
329	1874, Jan. 19	THOMAS, JOSIAH	Athenæum Chambers, Nicholas Street, Bristol.
841	1882, Dec. 18	THOMPSON, ARTHUR EDWARD .	Leadenhall Buildings, E.C.
656	1881, Dec. 19	THOMPSON, EDWARD JAMES . .	The Willows, Moss Lane, Timperley, Manchester.
1329	1886, Dec. 6	THOMSON, WILLIAM CUNNINGHAM	Estate Office, Connington, Peterborough.
1473	1888, Mar. 19	THORNE, ARNOLD	Cross Street, Barnstaple, Devon.
1000	1883, Dec. 17	THORPE, WILLIAM	Nailstone, Hinckley.
657	1881, Dec. 19	THURGOOD, HERBERT JOHN .	27, Chancery Lane, W.C.
591	A. '80, Dec. 13 / F. '87, Nov. 14	THURNALL, JOHN EDWARD . .	Royston, Herts.
494	1878, Jan. 14	THURSFIELD, THOMAS HOWELLS	Barrow, Brosely, Shropshire.
45	1868, Jun. 15	THYNNE, EDWARD LEWIS . .	11, Great George Street, S.W.
155	1869, Jan. 11	THYNNE, FREDERICK GEORGE .	11, Great George Street, S.W.
1070	1884, Jan. 28	THYNNE, GUY HARRY . . .	11, Great George Street, S.W.
742	1882, Feb. 13	TIFFEN, JOSEPH	Conservancy Buildings, Hull.
1373	1887, Feb. 21	TINDALL, CHARLES WILLIAM .	Scawby, Brigg, Lincolnshire.
1241	1885, Jan. 12	TODD, WILLIAM HENRY . .	County Buildings, Hull.
376	1875, Jan. 18	TOLLEY, JAMES	66, Cannon Street, E.C.
1438	1888, Jan. 9	TOMLINSON, THOMAS. . . .	Estate Office, Alnwick Castle, Northumberland.
766	1882, Feb. 27	TOOTELL, CHARLES	13, King Street, Maidstone, Kent.
767	1877, Jan. 29	TOOTELL, JOSEPH	13, King Street, Maidstone, Kent.
473	1882, Feb. 27	TOOTELL, RICHARD WILLIAM .	11, Queen Victoria Street, E.C.
447	1876, Apr. 24	TOWER, BROWNLOW RICHARD CHRISTOPHER	Bridgewater Estate Office, Ellesmere, Salop.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	
972	A. '83, May 25 / F. '86, Dec. 6	*‡TREADWELL, HENRY JOHN	5, Agar Street, Strand, W.C.
1001	1883, Dec. 17	TRETHEWY, HENRY	Silsoe, Ampthill, Beds.
92	1886, Jan. 11	TRIST, JOHN WILLIAM	62, Old Broad Street, E.C.
855	1874, May 11	TROLLOPE, CHARLES BROWN	13, Parliament Street, S.W.
1140	1884, Apr. 21	TROUTBECK, ROBERT	Maidstone, Kent.
92	1868, Jun. 15	TRUMPER, RICHARD	23, Lincoln's Inn Fields, W.C.
110	1868, Aug. 3	TUCKETT, PHILIP DEBELL	10A, Old Broad Street, E.C.
521	1878, Dec. 9	TUNLEY, GEORGE	14, Clement's Lane, E.C.
1199	1884, May 26	TURNBULL, THOMAS JOHN	Wimborne St. Giles, near Cranborne, Dorset
904	1883, Feb. 26	TURNER, FREDERICK JOHN	Mansfield-Woodhouse, Mansfield, Notts.
1071	1884, Jan. 28	TURNER, JOHN	The Grange, Ulceby, Lincolnshire.
168	1869, Feb. 8	TURNER, WILLIAM	1, Butter Market, Ipswich, Suffolk.
548	1879, May 12	TURNER, WILLIAM WEBB	9, Clinton Place, Seaford, Sussex.
1246	1885, Jan. 26	TURNOR, EXSUPERIUS WESTON	The Green, Stafford.
905	1883, Feb. 26	VAIZEY, JOHN GEORGE	Bocking, Braintree, Essex, and 44, Bedford R W.C.
1002	1883, Dec. 17	VEEVERS, RICHARD	Woningworth, Fulwood Park, Preston.
319	A. '73, Dec. 8 / F. '78, Nov. 11	VENABLES, FREDERICK	62, Chancery Lane, W.C.
429	1876, Feb. 21	*VERNON, ARTHUR	Borshams, High Wycombe, Bucks; and Great George Street, Westminster, S.W.
573	1880, Mar. 1	*VERNON, WALTER LIBERTY	4, Trinity Street, Hastings; and 26, G George Street, S.W.
816	1882, May 22	VIDLER, JAMES COLEMAN	Rye and Hastings, Sussex.
418	1876, Jan. 10	VIGERS, ASTLEY	4, Frederick's Place, E.C.
268	1871, Dec. 4	VIGERS, EDWARD, JUN.	38, Parliament Street, S.W.
20	1868, Jun. 15	VIGERS, FRANCIS (*Vice-President*)	4, Frederick's Place, E.C.
498	A. '78, Jan. 28 / F. '83, Nov. 12	VIGERS, LESLIE ROBERT	4, Frederick's Place, E.C.
594	A. '80, Dec. 13 / F. '85, Nov. 9	VIGERS, MARTIN	52, Queen Victoria Street, E.C.
46	1868, Jun. 15	VIGERS, ROBERT (*Member of Council*)	4, Frederick's Place, E.C.
842	1882, Dec. 18	WADE, JOHN	10, Pitt Street, Barnsley.
658	1881, Dec. 19	WAINWRIGHT, CHARLES RAWLINSON	Shepton Mallet, Somerset.
843	1882, Dec. 18	WAINWRIGHT, CHARLES RAWLINSON, JUN.	Shepton Mallet, Somerset.
906	1883, Feb. 26	WAISTELL, WILLIAM	Barnard Castle, Durham, and 6, Arden St Darlington.
535	A. '79 Mar. 3 / F. '87, Nov. 14	WAKEFIELD, GODFREY	40, Chancery Lane, W.C.
1392	1887, May 9	WALCOTT, LYONS RODEN SYMPSON	1, Gray's Inn Place, W.C.
1093	1884, Feb. 11	WALKER, EDWARD ROBINSON	31, John Street, Bedford Row, W.C.

‡ Driver Prize, 1883.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	
743	1882, Feb. 13	WALKER, HERBERT	Newcastle Chambers, Angel Row, Nottingham.
659	1881, Dec. 19	WALKER, SAMUEL	22, Moorgate Street, E.C.
072	1884, Jan. 28	WALL, GEORGE YOUNG . . .	Exchequer Buildings, Durham.
178	1884, May 19	WALLACE, HENRY	Trench Hall, Gateshead-on-Tyne, Co. Durham.
455	1888, Feb. 6	WALLINGTON, JOHN ARTHUR BEACH.	Basingstoke, Hants.
785	1882, Mar. 27	WALMISLEY, ARTHUR THOMAS .	5, Westminster Chambers, S.W.
407	1887, Dec. 19	WARD, DANIEL	Hewton, Beerferris, Devon.
469	1888, Mar. 5	WARD, FRANK	Burnville, Bridestowe, North Devon.
925	1883, April 16	WARD, JOHN GEORGE RODNEY .	Yatton Court, Kingsland, Herefordshire
660	1881, Dec. 19	WARE, CHARLES EDWIN . . .	Gandy Street Chambers, Exeter.
141	1884, Apr. 21	WARING, CHARLES EDWARD .	1, Charles Street, Crockherbtown, Cardiff.
162	1869, Jan. 25	WARING, THOMAS	1, Charles Street, Crockherbtown, Cardiff.
189	A. '69, Mar. 8 / F. '75, Apr. 12	WARNER, WILLIAM HENRY . .	130, Mount Street, Grosvenor Square, W
874	1883. Jan. 29	WATERMAN, JAMES	Ashford, Kent.
1109	1884, Feb. 25	WATERMAN, RICHARD . . .	20, Week Street, Maidstone, Kent.
758	A. '82, Feb. 13 / F. '87, Mar. 7	WATERS, WILLIAM RICHARD .	145, Dulwich Road, Herne Hill, S.E.
47	1868, Jun. 15	WATNEY, DANIEL. . . . . (*Member of Council*)	33, Poultry, E.C.
951	A. '83, May 21 / F. '87, Feb. 21	WATNEY, WALTER DANIEL . .	33, Poultry, E.C.
574	1880, Mar. 1	WATSON, HERBERT EDWARD .	New Grove, Petworth, Sussex, and Clifton, York.
797	1882, Apr. 24	WATSON, JOHN	Shirburn Castle, Tetsworth, Oxon.
1456	1888, Feb. 6	WATT, ALEXANDER	Princetown, Devon.
467	A. '76, Dec. 18 / F. '79, Nov. 10	WATTS, CHARLES	25, Bedford Row, W.C.
1003	1883, Dec. 17	WATTS, JAMES	Broad Street, Wokingham, Berks.
284	1872, May 6	WEALL, JOHN	38, High Street, Watford.
1045	1884, Jan 14	WEATHERALL, HENRY . . .	22, Chancery Lane, W.C.
700	1882, Jan. 16	WEAVER, WILLIAM	Town Hall, Kensington, W.
215	1869, Dec. 6	WEBB, GEORGE	Tunstall, Sittingbourne, Kent.
1478	1888, Apr. 16	WEBSTER, ALEXANDER . . .	100, Highgate, Kendal, Westmoreland.
661	1881, Dec. 19	WELLSTED, WILLIAM HENRY .	Manor Street, Kingston-upon-Hull.
744	1882, Feb. 13	WESTBURY, GEORGE HENRY .	The Knoll, Andover, Hants.
88	1868, Jul. 20	WESTBURY, GILES	Andover, Hants.
1454	1888, Feb. 6	WHALLEY, HENRY SHAW . .	37, Pepper Street, Chester.
779	1882, Mar. 13	WHARTON, THOMAS GEORGE .	1, Basinghall Street, E.C.
1266	1885, Apr. 20	WHITAKER, GEORGE	33A, Broadway Hammersmith W.
745	1882, Feb. 13	WHITE, JOHN.	Warrington, Lancashire.
701	1882, Jan. 16	WHITELEY, CHARLES PERRY .	76, Queen Street, E.C.
350	1874, Apr. 27	WIDNELL, FREDERICK GRAINGER	13, Parliament Street, S.W.
234	A. '70, Feb. 7 / F. '76, Nov. 13	WIGRAM, JOHN	South Collingham, Newark, Notts.
721	1882, Jan. 30	WILKINSON, GEORGE AYSCOUGH	7, Poultry, E.C.
1226	1884, Dec. 8	WILKINSON, THOMAS . . .	168, North Street, Brighton.

Dip. No.	*Date of Election and of Transfer.*	FELLOWS.	
915	1883, April 2	WILKINSON, WILLIAM . . .	St. Stephen's Chambers, Telegraph Street,
1242	1885, Jan. 12	WILKS, RICHARD	Little Mongeham, near Deal, Kent.
1094	1884, Feb. 11	WILLIAMS, JOHN	Gwernhefin, Bala, North Wales.
240	1870, May 9	WILLIAMS, STEPHEN WILLIAM .	Rhayader, Radnorshire.
575	1880, Mar. 1	WILLIAMS, WILLIAM	Salop Road, Oswestry.
568	A. '80, Jan. 19 F. '88, Apr. 16	WILLIAMS, WILLIAM HERBERT.	Llandaff, Cardiff.
116	1868, Aug. 10	WILLMOT, FRANCIS	6, Waterloo Street, Birmingham.
807	A. '82, Apr. 24 F. '87, May 9	WILLMOT, JOHN	6, Waterloo Street, Birmingham.
1004	1883, Dec. 17	WILSON, JACOB	5, Great George Street, S.W., and Chilling Alnwick.
662	1881, Dec. 19	WILSON, THOMAS SILK . . .	Albert Square, Manchester.
1150	A. '84, Apr. 21 F. '88, Mar. 19	WINDER, GEORGE ALEXANDER.	Escot Estate Office, Fairmile, Ottery St. M Devon.
844	1882, Dec. 18	WING, WILLIAM	Caversham, Reading.
48	1868, Jun. 15	WITHALL, RICHARD AUGUSTUS .	29, Great George Street, S.W.
50	1868, Jun. 15	WOOD, FREDERICK	34, Regency Square, Brighton.
1474	1888, Mar. 19	WOOD, JOHN DANIEL . . .	19, Mount Street, W.
1258	1885, Feb. 23	WOOD, WILLIAM	Ifield Court, Crawley, Sussex.
663	1881, Dec. 19	WOODS, HENRY	19 & 20, Walbrook, E.C.
845	1882, Dec. 18	WOODHAMS, JAMES . . .	50 Havelock Road, Hastings.
613	1881, Feb. 21	WOOLLEY, REGINALD. . . .	Silver Street, Lincoln, and South Collingh Newark, Notts.
427	A. '76, Feb. 7 F. '80, Nov. 8	WOOLLEY, THOMAS CECIL SMITH	South Collingham, Newark, Notts.
267	A. '71, Nov. 13 F. '77, Jan. 29	WOOLLEY, WILLIAM EDWARD .	Loughborough, Leicestershire.
680	A. '81, Dec. 19 F. '87, Jan. 10	WREATHALL, ROBERT T. . .	30, Walbrook, E.C.
1200	1884, May 26	WRIGHT, JAMES	Irongate, Derby.
292	1872, Dec. 9	WRIGHT, WILLIAM EDWARD .	King's Lynn, Norfolk.
283	1872, Apr. 22	WRIGHT, WILLIAM	Wollaton, Nottinghamshire.
722	1882, Jan. 30	WYATT, OLIVER NEWMAN . .	East Street, Chichester.
1120	1884, Mar. 10	WYLEY, HENRY JAMES . . .	Bridgnorth, Shropshire.
1227	1884, Dec. 8	WYLEY, WILLIAM JOHN . .	2, School Chambers, Shrewsbury.
430	1876, Feb. 21	YEOMAN, GEORGE DUNDAS . .	Bedford, Bedfordshire.

Professional Associates.

The names of those Professional Associates who have qualified for the Class by Examination are distinguished thus *

The names of those Professional Associates who have further qualified by Examination for, but have not yet been transferred to, the Class of Fellows are distinguished thus ¶

Diploma Number.	Date of Election.		
1439	1888, Jan.	9	*Adkin, Beniah Whitley . . Brandon House, Morden Hill, Lewisham, S.E.
1230	1885, Dec.	7	*Arnott, John . . . . . Church Street, Woodbridge, Suffolk.
1408	1887, Dec.	19	*Austin, Richard, Jun.. . . Bishop's Waltham, Hants.
798	1882, Apr.	24	Ayres, Charles Pryor . . Gresham Lodge, Watford, Herts.
665	1881, Dec.	19	Bailey, Leonard . . . . Estate Office, Scorton, Garstang, Lancashire.
1281	1885, Dec.	7	*Baker, Cecil Cautley. . . 21, Bedford Row, W.C.
553	1879, Dec.	8	Balding, Albert . . . . Barkway, Herts.
1111	1884, Feb.	25	Ballard, William Washington Victoria Tower Chambers, Millbank Street, S.W.
1247	1885, Jan.	26	*Barratt, Harry. . . . . Middle Street, Stourbridge, Worcestershire.
1409	1887, Dec.	19	*Bateman, Arthur Charles . Oriel House, Witney, Oxon.
622	1881, May	16	Beadel, Henry Grant . . . 97, Gresham Street, E.C.
1282	1885, Dec.	7	*Beard, Edwin Thomas . . 3, St. Catherine's, Lincoln.
148	1868, Nov.	9	Beauchamp, Charles Davie . 9, Whitehall Place, S.W.
1212	1884, Nov.	10	*¶Benson, Robert Alan . . Duchy of Cornwall Office, Buckingham Gate, S.W.
383	1875, Feb.	1	Bidwell, Shelford . . . 9, Whitehall Place, S.W.
1330	1886, Dec.	6	*Birch, Walter de Hoghton. Kerry, Montgomeryshire.
1351	1887, Jan.	10	*Birkett, Tom . . . . . Foxton House, Penrith, Cumberland.
876	1883, Jan.	29	Bishop, Reginald George . 2, Godliman Street, Doctors' Commons, E.C.
1283	1885, Dec.	7	*Blundell, Harry . . . . Cauldon Place, Shelton, Stoke-upon-Trent.
1158	1884, May	5	Blunt, Herbert Arthur Scawen St. Andrew's Rectory, E.C.
768	1882, Feb	27	Boa, Andrew. . . . . Great Thurlow, Newmarket, Suffolk.
1159	1884, May	5	Bond, Frederick George . . Old Bank House, Ipswich.
542	1879, Mar.	31	Boodle, Francis Edward . . Rolls Chambers, 89, Chancery Lane, W.C.
846	1882, Dec.	18	*Booth, John Frederick . . 25, Windle Street, St. Helen's, Lancashire.
1331	1886, Dec.	6	*Bousfield, Edwin Vaughan Davenport . . . . . 99, Gresham Street, E.C.
666	1881, Dec.	19	Bradly, William . . . . Compensation Office, Metropolitan Board of Works, Spring Gardens, S.W.
1374	1887, Feb.	21	*Briggs, John . . . . . Metropolitan Board of Works, Spring Gardens, S.W.
1073	1884, Jan.	28	Brown, Alexander . . . . Home Farm, Hothfield, Ashford.
847	1882, Dec.	18	Brown, William Arthur . . 146, Goswell Road, E.C.
1410	1887, Dec.	19	*Brown, William Edward . . Reading Villa, Denmark Road, Watford, Herts.

PROFESSIONAL ASSOCIATES.

Dip. No.	Date of Election.		
1142	1884, Apr. 21	BROWNE, FLINT	73, Cheapside, E.C.
1046	1884, Jan. 14	BRUCE, ROBERT KNIGHT. . .	Mentmore, Leighton Buzzard, Bucks.
1284	1885, Dec. 7	*¶BUCKLAND, ALFRED VIRGOE .	66, Cannon Street, E.C.
944	1883, May 21	BUCKLAND, WILLIAM THOMAS .	9, Whitehall Place, S.W.
1332	1886, Dec. 6	*¶BURROWS, ALFRED JOHN . .	41, Bank Street, Ashford, Kent.
1411	1887, Dec. 19	*BUSHELL, HENRY	1, Finsbury Circus, E.C.
1412	1887, Dec. 19	*BUSS, FLEETWOOD GEORGE WILLIAM.	37, South Hill Park, Hampstead, N.W.
1160	1884, May 5	BUTTERWORTH, JOSIAH . . .	Mansfield, Notts.
1333	1886, Dec. 6	*CALLENDAR, WILLIAM JACKSON	Post Office, Maryborough, Queensland, Austr
1334	1886, Dec. 6	*CAMPBELL, COLIN	Canford Estate Office, Wimborne, Dorsetshir
799	1882, Apr. 24	CARD, HENRY	North Street, Lewes, Sussex.
249	1870, Dec. 12	CARDALL, FREDERIC WILLIAM .	9, Whitehall Place, S.W.
1413	1887, Dec. 19	*CARTER, ALFRED PRESLEY . .	2, Steele's Road, Haverstock Hill, N.W.
1352	1887, Jan. 10	*CARTER, FRANK WELLINGTON .	22, Great George Street, S.W.
241	1870, May 9	CATLING, ROBERT CHARLES . .	Needham Hall, Elm, Cambridgeshire.
1006	1883, Dec. 17	CHAPMAN, VAUGHAN GODFREY ST. JOHN	76, Queen Street, E.C.
1121	1884, Mar. 10	CHESTER, WILLIAM RICHARD .	39, New Broad Street, E.C.
1112	1884 Feb. 25	CHRISTY, ARCHIBALD ERNEST .	30, Great St. Helen's, E C., and Boynton H Chelmsford, Essex.
1007	1883, Dec. 17	CLARKE, PERCY HENRY . . .	2, Lancaster Place, W.C.
426	1876, Feb. 7	CLAYDEN, WALTER	6, Moorgate Street, E.C.
1122	1884, Mar. 10	CLIFTON, WILLIAM EDWARD .	7, East India Avenue, E.C.
1285	1885, Dec. 7	*COALES, HERBERT GEORGE. .	Beaconfields Place, Southall.
1202	1884, May 26	COLLIER, ARTHUR CHARLES .	Woodhatch, Reigate.
1414	1887, Dec. 19	*COLLINGHAM, J. CYRIL LEES .	16, Whitehall Place, S.W.
826	1882, Dec. 4	*COLLINS, MARCUS E. . . .	61, Old Broad Street, E.C.
320	1874, Jan. 5	COOKE, WILLIAM GEORGE . .	Engineer's Office, L. & S. W. Ry., Wate Bridge Station.
926	1883, April 16	COUCHMAN, HENRY BOTELER .	Henley-in-Arden, Birmingham.
598	1881, Jan. 10	COURTHOPE, ALEXANDER . .	Bignor Park, Pulborough, Sussex.
747	1882, Feb. 13	COWPER, RICHARD WILLIAM. .	81, High Street, Sittingbourne, Kent.
222	1870, Jan. 10	CRAWLEY, WILLIAM JEEVES . .	Sayesbury, Sawbridgeworth, Herts.
961	1883, May 25	*CRAWTER, JOHN, Jun. . . .	4, Great James Street, Bedford Row, W.C.
615	1881, Mar. 21	CRESSWELL, JOHN THEODORE ROSS	9, Whitehall Place, S.W.
608	1881, Feb. 7	CROFTS, EWAN NEVILE . . .	Leadenham, Grantham, Lincolnshire.
1335	1886, Dec. 6	*CROSLAND, WALTER	Mayfield, Sussex.
891	1883, Feb. 12	CROSS, JOHN	80, Cheapside, E.C.
537	1879, Mar. 17	CUDLIPP, WILLIAM	33, Poultry, E.C.
877	1883, Jan. 29	CUMBERBATCH, CARLTON PARRY	9, Whitehall Place, S.W.

Dip. No.	Date of Election.	PROFESSIONAL ASSOCIATES.	
945	1883, May 21	DAFFARN, THOMAS ALFRED. .	6, Spring Gardens, S.W.
723	1882, Jan. 30	DANSIE, FREDERICK CROWN. .	51, Long Lane, Smithfield, E.C.
907	1883, Feb. 26	DASH, ROLAND ASHFORD . .	9, Whitehall Place, S.W..
399	1875, Apr. 26	DASHWOOD, FREDERICK LOFTUS	Kirtlington, Oxford.
848	1882, Dec. 18	DAVID, EDMUND USSHER . .	Llandaff, near Cardiff.
780	1882, Mar. 13	DAVIS, CHARLES JAMES . . .	32, Strand, W.C.
1008	1883, Dec. 17	DAWSON, WALTER HENRY . .	19, St. Edmund's Terrace, Regent's Park, N.W.
1010	1883, Dec. 17	DEMETRIADI, THOMAS MARSDEN	28. John William Street, Huddersfield.
878	1883, Jan. 29	DOBIE, HENRY	Post Office Box 110, Port of Spain, Trinidad.
1415	1887, Dec. 19	*‡DONE, JOHN JAMES . . .	10, Finsbury Square, E C.
748	1882, Feb. 13	DREW, ALLEN	80, Cheapside, E.C.
1336	1886, Dec. 6	*¶DREW, HENRY ALBAN. . .	15, Queen Street, Exeter.
1095	1884, Feb. 11	DREW, JOHN GOULD	15, Queen Street, Exeter.
1229	1884, Dec. 8	*DUNNING, BERNARD SIMON . .	41, Claverton Street, S.W.
202	1869, Jun. 28	EASTON, EDWARD.	9, Delahay Street, S.W.
1293	1886, Jan. 11	*EILOART, ALFRED	40, Chancery Lane, W.C.
1011	1883, Dec. 17	ELLIS, CHARLES GODWIN . .	14, Fitzjohn's Parade, Finchley Road, N.W.
1113	1884, Feb. 25	ELLIS, LEONARD ASHBY . . .	7, Criffel Avenue, Telford Park, Streatham, S.W.
1365	1887, Jan. 24	*ELLIS, RALPH STAPLES . .	69, Palace Gardens Terrace, Kensington, W.
667	1881, Dec. 19	ELWELL, WILLIAM HENRY . .	Surveyor's Office, Great Northern Railway, King's Cross, N.
1047	1884, Jan. 14	EVANS, TOM AUGUSTUS JOHN .	3, Old Palace Yard, S.W.
1416	1887, Dec. 19	*EVE, HERBERT TRUSTRAM . .	2, St. Paul's Square, Bedford.
170	1869, Feb. 8	FAWCETT, JAMES POGUE. . .	29, Fleet Street, E.C.
609	1881, Feb. 7	FEW, HARRY GARRARD . . .	Market Place, Newbury.
921	1883, April 16	FISHER, CHARLES BROWNING .	Hill Crest, Market Harborough.
1123	1884, Mar. 10	FITNESS, JOHN FRANCIS . . .	80, Cheapside, E.C.
916	1883, April 2	FLETCHER, GEORGE RIVERS. .	10A, Old Broad Street, E.C.
1075	1884, Jan. 28	FLINT, LESLIE SENTANCE . .	Wraysbury, Bucks.
749	1882, Feb 13	FLINT, WILLIAM HURST . . .	Lincoln's Inn Fields (corner of Serle Street), W.C.
1114	1884, Feb. 25	FREEMAN, SYDNEY	28, Queen Street, E.C.
947	1883, May 21	FULLER, HERBERT HENRY . .	26, Charing Cross, S.W.
1124	1884, Mar. 10	FULLER, THOMAS ALFRED . .	The College, All Saints', Derby.
751	1882, Feb. 13	FURBER, HENRY AUBREY . .	42, Marlborough Hill, N.W.
1417	1887, Dec. 19	*¶FURBER, PERCY NORMAN . .	6, Upper Hamilton Terrace, N.W.
849	1882, Dec. 18	FYFE, GEORGE PETERS COLLIER	4, Walm Lane, Willesden Park, N.W.
702	1882, Jan. 16	GARROD, HERBERT JAMES . .	Bell Street, Reigate, Surrey.
1203	1884, May 26	GAYFORD, HENRY JOHN. . .	Raynham Estate Office, East Raynham, Norfolk.

‡ Driver Prizeman, 1887.

Dip. No.	Date of Election.	PROFESSIONAL ASSOCIATES.	
1294	1886, Jan. 11	*‡Gibbon, William Jacomb.	3, Verulam Buildings, Gray's Inn, W.C.
522	1878, Dec. 9	Gibson, Walter Matthew	Privy Purse Office, Buckingham Palace, S.W.
1386	1887, Mar. 21	*Golightly, Charles Hugh	Old Lodge, Lingfield, Surrey.
956	1883, May 25	Gore, William Joll	20, Warrington Crescent, W.
1096	1884, Feb. 11	Gow, James	9, Whitehall Place, S.W.
979	1883, Nov. 12	Grant, Harry Græme	Surveyor's Office, Great Western Rail Paddington, W.
1012	1883, Dec. 17	Green, James Henry Townsend	22, Chancery Lane, W.C.
1418	1887, Dec. 19	*Green, Thomas John	1, Surrey Villas, Sevenoaks, Kent.
1337	1886, Dec. 6	*Green, Thomas Joseph	28 and 29, St. Swithin's Lane, E.C.
1230	1884 Dec 8	*Greenop, Edward	74, Bonham Road, Brixton Rise, S.W.
1076	1884, Jan. 28	Grimwade, Henry	Colchester, Essex.
1231	1884, Dec. 8	*Halkyard, William Redford	The Firs, Knutsford.
1179	1884, May 19	Hall, Charles Pell	Euston, Thetford, Norfolk.
1295	1886, Jan. 11	*†Hall, William Timothy	Uppington, Wellington, Salop.
1338	1886, Dec. 6	*Halton, Harry Russell	Marsh House, Lower Tottenham, N.
770	1882, Feb. 27	Hamilton, John Paynter	64 and 65, Coleman Street, E.C.
892	1883, Feb. 12	*¶Hansell, Reginald Goddard	Lonsdale Chambers, 27, Chancery Lane, W.C
1419	1887, Dec. 19	*Harding, Frederick Allcroft	Holmfield, near Gipsy Lane, Barnes Comm S.W.
614	1881, Feb. 21	Harper, Edgar Josiah	Estate Office, Metropolitan Board of Wo Spring Gardens, S.W.
523	1878, Dec. 9	Harvey, John James Sayer	1, Parade, Canterbury, Kent.
962	1883, May 25	*¶Hasluck, Lancelot Gerald	Green Hill Park, New Barnet, Herts.
1287	1885, Dec. 7	*Hebblethwaite, Chas. Henry	1, Norfolk Place, Halifax, Yorkshire.
1014	1883, Dec. 17	Hebden, George Radcliffe	66, Cannon Street, E.C.
588	1880, Dec. 13	Hedger, Arthur Constantine	80, Cheapside, E.C.
821	1882, Nov. 13	Henderson, Henry Arthur	Pembury Estate Office, Pembury Road, Lo Clapton, E.
1353	1887, Jan. 10	*Henderson, Richard	20, George Street, Edinburgh.
928	1883, April 16	Henry, Edward Hugh.	63, High Street, Clapham, S.W.
850	1882, Dec. 18	Hewitt, William	Ivy Lodge, Aylestone Hill, Hereford.
948	1883, May 21	Hicks, Stanley	Orbliston, Telford Avenue, Streatham Hill, S
1303	1886, Jan. 25	*Hilliard, George Edward	Chelmsford, Essex.
1015	1883, Dec. 17	Hinchliffe, John, Jun.	Bullhouse Hall, Pennistone, Sheffield.
1180	1884, May 19	Hodsoll, William, Jun.	Farningham, Kent.
908	1883, Feb. 26	Holbeche, Æmilian Henry	26, Pinfold Gate, Loughborough.
893	1883, Feb. 12	Holland, Thomas James, Jun.	1, Pembroke Cottages, Edwardes Square, Kensington, W.
879	1883, Jan. 29	Holmes, James Thomas	97, Gresham Street, E.C.
822	1882, Nov. 13	Homfray, William Francis	Rease Heath Estate Office, Nantwich, Chesh

‡ Driver Prizeman, 1885. † Institution Prizeman, 1884.

Dip. No.	Date of Election.	PROFESSIONAL ASSOCIATES.	
181	1884, May 19	HOOPER, ALFRED FREDERICK .	Junction Road, Andover, Hants.
446	1888, Jan. 23	*HOOPER, CECIL HENRY . . .	Elmleigh, Beckenham, Kent.
097	1884, Feb. 11	HOPE, WILLIAM ELLIOTT . .	91, Tufnell Park Road, N.
048	1884, Jan. 14	HOPKINS, EDWIN	9, Whitehall Place, S.W.
366	1883, Jan. 15	HOWELL, ERNEST JOHN . .	116, Cromwell Road, S.W.
016	1883, Dec. 17	HUSKINSON, THOMAS WILLIAM .	Epperstone Manor, Nottingham.
017	1883, Dec. 17	HUSSEY, GEORGE HENRY CLELAND	1, Gray's Inn Place, W.C.
182	1884, May 19	HUSSEY, ROBERT	Newborough, near Burton-on-Trent, Staffordshire.
162	1884, May 5	I'ANSON, BRYAN WALTER . .	Exeter Wood Farm, Cotton End, Bedford.
610	1881, Feb. 7	INGLEBY, HERBERT	7, Whitehall Place, S.W.
351	1882, Dec. 18	INGRAM, HENRY LAW . . .	97, Gresham Street, E.C.
1340	1886, Dec. 6	*IVIMEY, ALFRED	74, Lavender Hill, S.W.
550	1879, Nov. 24	JESSETT, CHARLES	62, Old Broad Street, E.C.
1463	1888, Feb. 20	*†JONAS, HARRY MARSHALL . .	Brooklands Avenue, Cambridge.
1375	1887, Feb. 21	*JONAS, SAMUEL MARSHALL . .	Brooklands Avenue, Cambridge.
673	1881, Dec. 19	JONES, THOMAS	37, Brown Street, Manchester, and 3, Old Palace Yard, S.W.
226	1870, Jan. 24	JOHNSTON, ANDREW	97, Gresham Street, E.C.
1420	1887, Dec. 19	*JOHNSTON, WALTER HENRY. .	6, Latham Street, Preston.
1018	1883, Dec. 17	JORDAN, GEORGE HENRY . .	16, Whitehall Place, S.W.
1323	1886, May 17	*JULL, WILLIAM VINCENT . .	Wrotham Lodge, Streatham Hill, S.W.
1163	1884, May 5	KEELING, GILBERT	2, Tokenhouse Buildings, Lothbury, E.C.
880	1883, Jan. 29	KEER, WILLIAM	35, Walbrook, E.C.
1077	1884, Jan. 28	KERR, ARTHUR HERBERT . .	Bootham, Yorkshire.
624	1881, May 16	KETTLE, FREDERICK CHARLES .	Tower Chambers, Moorgate Street, E.C.
1125	1884, Mar. 10	*¶KING, ALFRED	6, Spring Gardens, S.W.
1387	1887, Mar. 21	*KING, WILLIAM ISAAC . . .	The Grange, Highgate, N.
853	1882, Dec. 18	KNOWLES, HENRY	Wells Green, Gloucester.
1019	1883, Dec. 17	LAWRENCE, WILLIAM ROBERT	22, Surrey Street, Victoria Embankment, W.C.
441	1876, Apr. 3	LEE, GEORGE CANSFIELD . .	North Eastern Railway, York.
1354	1887, Jan. 10	*LEE, JOHN WILFRID . . .	Fairholme, Creffield Road, Colchester, Essex.
675	1881, Dec. 19	LEONARD, HENRY HOLMES . .	202, Bishopsgate Street Without, E.C.
1143	1884, Apr. 21	LIGHTFOOT, JOHN GEORGE . .	9, Whitehall Place, S.W.
1164	1884, May 5	LOFTS, HENRY FAIRLAM . .	130, Mount Street, W.
854	1882, Dec. 18	LOMER, MONTAGUE FRANK . .	Southampton, Hants.

† Institution Prizeman, 1887.

Dip. No.	*Date of Election.*	PROFESSIONAL ASSOCIATES.	
1183	1884, May 19	LOVESAY, WILLIAM	4, Frederick's Place, E.C.
1126	1884, Mar. 10	LOW, ROBERT JOHN	Cumberland Road, St. Albans, Herts.
1355	1887, Jan. 10	*LOWE, CHARLES ROBERT . .	Hampstead Vestry Hall, Haverstock Hill, N.
489	1877, May 14	LUCAS, JOSEPH	21, Defoe Road, Tooting Graveney, S.W.
1204	1884, May 26	LYNCH, JAMES HENRY . . .	302, Regent Street, W.
917	1883, April 2	LYSTER, THOMAS RICE SOMERVILLE	Bedford Office, Thorney, Peterborough.
1144	1884, Apr. 21	MCCALLUM, PETER SERVICE .	Land Agent's Office, Midland Railway, Derby
1318	1886, May 3	*MADDOX, CHARLES RALPH . .	20, Baker Street, W.
470	1877, Jan. 15	MARRIOTT, GEORGE WHARTON .	41, West Cromwell Road, South Kensington, S
1288	1885, Dec. 7	*¶MASSIE, FRANK	St. Paul's Chambers, Sheffield.
1356	1887, Jan. 10	*MAXWELL, FRANCIS WILLIAM .	29, Princess Street, Manchester.
1308	1886, Feb. 22	*MEAD, JOHN HENRY . . .	9, Whitehall Place, S.W.
1447	1888, Jan. 23	*MELROSE, FRANK	Heslington, York.
1145	1884, Apr. 21	MERRETT, JAMES.	9, Whitehall Place, S.W.
497	1878, Jan. 28	MESTON, JOSEPH FYFE . . .	50, Parliament Street, S.W.
1421	1887, Dec. 19	*¶MILLWARD, ISAAC	Office of Public Works, Athlone, Ireland.
752	1882, Feb. 13	MILNES, ROBERT, JUN. . . .	15, Endymion Road, Brixton Hill, S.W.
1232	1884, Dec. 8	*MIXER, EDWARD	80, Cheapside, E.C.
1127	1884, Mar. 10	MOSS, THOMAS WALTER. . .	21, Doughty Street, W.C.
965	1883, May 25	*MOYES, JOHN HELENUS . . .	26, Trinity Street, Cambridge.
1166	1884, May 5	MYLNE, WILLIAM JOHN HOME .	49, Hamilton Terrace, N.W.
856	1882, Dec. 18	NEWMAN, CHARLES HENRY. .	34, Savile Row, Burlington Gardens, W.
1020	1883, Dec. 17	NEWTON, THOMAS EDWIN . .	45, Jewry Street, Winchester.
1128	1884, Mar. 10	NORRIS, EDWARD JAMES . . .	9, Whitehall Place, S.W.
502	1878. Feb. 11	NORRIS, WALTER HENRY . .	St. Andrew's, Watford, Herts.
1698	1884, Feb. 11	OWEN, THOMAS HENRY . . .	Haverfordwest, Pembrokeshire.
781	1882, Mar. 13	PAGE, THOMAS GOWLAND . .	57, Coleman Street, E.C.
966	1883, May 25	*¶PAIN, JAMES	Borough, Micheldever, Hants.
1422	1887, Dec. 19	*PARRY, RICHARD	27, Ivanhoe Road, Champion Hill, S.E.
957	1883, May 25	PARSONS, ROBERT MAURICE PETERS	Misterton, Crewkerne, Somerset.
1376	1887, Feb. 21	*PATERSON, ANDREW THOMPSON	4, Hamilton Place, Totton, Southampton, Ha
402	1875, May 10	PAYNE, WILLIAM PERCY . .	Holmesdale, The Park, Nottingham.
857	1882, Dec. 18	PEACE, ALFRED LINDLEY . .	Thorne, Doncaster.
1146	1884, Apr. 21	PEARCE, FREDERICK WILLIAM .	9, Whitehall Place, S.W.
1167	1884, May 5	PEARCE, WILLIAM JOHN . .	4, Frederick's Place, E.C.
1357	1887, Jan. 10	*PELHAM-CLINTON, HUBERT EDWARD	Moor Court, Stroud, Gloucestershire.

p.	*Date of Election.*	PROFESSIONAL ASSOCIATES.	
41	1886, Dec. 6	*Perkins, Walter Frank . .	Portswood House, Southampton, Hants.
89	1887, Apr. 18	*Perks, Sidney	Soho Lodge, Wandsworth Common, S.W.
84	1884, May 19	Perrers, Harry Wilson . .	8, Argyll Place, Regent Street, W.
16	1869, Dec. 6	Petre, The Hon. Henry William	Springfield, Chelmsford, Essex.
78	1884, Jan. 28	*Petre, Robert George . .	Springfield, Chelmsford, Essex.
21	1883, Dec. 17	Pewtress, Herbert Wilmshurst	124, Chancery Lane, W.C.
29	1884, Mar 10	Phillips, George Cawkwell .	Mildmay Road, Chelmsford, Essex.
79	1884, Jan. 28	Phillips, John Henry . . .	130, Mount Street, Berkeley Square, W.
48	1888, Jan. 23	*Phillips, William Dearlove .	High Wycombe, Bucks.
42	1886, Dec. 6	*†Physick, Walter Frederick	136, Marylebone Road, N.W.
22	1883, Dec. 17	Powell, Hubert John . . .	St. Swithun's, Lewes, Sussex.
43	1886, Dec. 6	*Prater, Thomas Herbert .	Farnborough, Banbury, Warwickshire.
05	1884, May 26	Price, Thomas William . .	59, Fenchurch Street, E.C.
99	1884, Feb. 11	Pridham, John Lawrence . .	Paignton, South Devon.
80	1884, Jan. 28	Purchase, Edward Keynes .	124-127, Mansion House Chambers, E.C.
89	1885, Dec. 7	*Rand, John	Belle Street, Reigate, Surrey.
29	1883, April 16	Reid, Francis	Bucksford House, Ashford, Kent.
01	1882, Apr. 24	Rex, Charles William . .	311, Kentish Town Road, N.W.
02	1882, Apr. 24	Rex, Francis Herbert . .	311, Kentish Town Road, N.W.
81	1883, Jan. 29	Rigden, Charles Furner . .	2A, Courtfield Road, S.W.
23	1876, Jan. 24	Roberts, Q. Charles . . .	3, Upper Montague Street, Russell Square, and 2, South Square, Gray's Inn, W.C.
53	1882, Feb. 13	Roberts, Charles Gordon. .	42, New Broad Street, E.C.
54	1882, Feb. 13	Robey, Robert	Oaklands, East Tytherley, near Romsey, Hants.
23	1887, Dec. 19	*Robinson, Alfred Whitmore.	28, Cresswell Grove, Albert Park, Didsbury, Manchester.
25	1882, Jan. 30	Robinson, James Thomas . .	7, John Street, Adelphia, W.C.
03	1882, Apr. 24	Robinson, Martin Catlin . .	Oakley Hall, Bishop's Stortford.
69	1883, May 25	*‡¶Rolleston, William Gustavus Stanhope	Grey Friars, Leicester.
30	1884, Mar. 10	Rose, Edward Joseph . . .	48, Broad Street, Oxford.
81	1884, Jan. 28	Ross, David James	Surveyors' Office, Guildhall, E.C.
40	1883, April 30	Rowlandson, Christopher . .	The College, Durham.
70	1883, May 25	*Rundle, Edward Collins . .	Bedford Office, Tavistock, Devon.
23	1883, Dec. 17	Rüntz, Ernest Augustus . .	22, Moorgate Street, E.C.
06	1884, May 26	Russell, James Elgar. . .	St. John's, Sutton-at-Hone, near Dartford, Kent.
09	1883, Feb. 26	Ryde, Charles Bertram . .	29, Great George Street, S.W.

† Institution Prizeman, 1886. ‡ Institution Prizeman, 1883.

Dip. No.	Date of Election.	PROFESSIONAL ASSOCIATES.	
1024	1883, Dec. 17	SABIN, JOSEPH HENRY . . .	16, Whitehall Place, S.W.
1233	1884, Dec. 8	*SADLER, GEORGE WILLIAM, Jun.	6, Clarence Place, Cheltenham.
438	1876, Mar. 20	ST. QUINTIN, RICHARD SAMUEL	37, Threadneedle Street, E.C.
1424	1887, Dec. 19	*SALT, REGINALD NOWELL . .	Quarry Place, Shrewsbury.
971	1883, May 25	*SATCHELL, CHARLES. . . .	Allen, Alderson, & Co., Alexandria, Egypt.
1147	1884, Apr. 21	SAUNDERS, SAMUEL BROWN. .	Estate Office, L. & S. W. Ry., Waterloo Stat S.E.
782	1882, Mar. 13	SAVILL, ALFRED, JUN. . . .	39, New Broad Street, E.C.
1148	1884, Apr. 21	SCARLETT, HARRY	Downland, Uckfield, Sussex.
867	1883, Jan. 15	SCAMMELL, THOMAS	14, John Street, Bristol.
755	1882, Feb. 13	SCRIVEN, CHARLES HERBERT .	Oakley House, Scole, Norfolk.
1234	1884, Dec. 8	*SELBY, JOHN BASELEY . . .	Atherton Old Hall, Leigh, near Manchester.
572	1880, Feb. 16	SEXBY, JOHN JAMES	Metropolitan Board of Works, Spring Gard S.W.
1049	1884, Jan. 14	SHACKLE, EDWARD NEILD . .	Holmbury, Hayes, Middlesex.
1425	1887, Dec. 19	*SHAW, ARTHUR	Ramsden Estate Offices, Railway Street, H dersfield.
950	1883, May 21	SHAW, JOHN, Jun.	The College, All Saints', Derby.
1149	1884, Apr. 21	SHERRY, NATHANIEL. . . .	49, Fenchurch Street, E.C.
503	1878, Feb. 11	SHOPPEE, CONRAD JOSEPH . .	Fore Street, Hertford, Hertfordshire.
811	1882, May 8	SIMMONS, CHARLES FRANKLIN .	Basingstoke, Hants; and Henley-on-Thames
824	1882, Dec. 4	SIMMONS, WILLIAM ANKER .	Henley-on-Thames.
1082	1884, Jan. 28	SKEWIS, EDWIN	39, New Broad Street, E.C.
858	1882, Dec. 18	SKINGLE, ALFRED	29, Fleet Street, E.C.
1050	1884, Jan. 14	SLADE, ISAAC	96, Queen Street, E.C.
538	1879, Mar. 17	SMITH, GEORGE CECIL . . .	81, Bondgate, Darlington, Durham, and Whitehall Place, S.W.
894	1883, Feb. 12	SMITH, WHEATER	17, Hampton Place, Bradford.
152	1868, Nov. 9	SMYTH, EDWARD	9, Whitehall Place; and 52, Wiltshire F Brixton, S.W.
		(Professional Associate of Council)	
868	1883, Jan. 15	STACEY, WILLIAM	80, Cheapside, E.C.
911	1883, Mar. 12	STENNING, PERCY HAINES . .	4, Abchurch Yard, E.C
710	1882, Jan. 16	STEVENSON, FREDERICK J. . .	4, Frederick's Place, E.C.
828	1882, Dec. 4	STOWER, JOSEPH	29, Fleet Street, E.C.
415	1875, Dec. 13	STRUTT, THE HON. EDWARD GERALD	Terling Place, Witham, Essex.
1235	1884, Dec. 8	*STURGE, THEODORE	34, Corn Street, Bristol.
1296	1886, Jan. 11	*STURGESS, JOHN MOORE . .	Penshurst Park, near Tunbridge, Kent.
1427	1887, Dec. 11	*SWETENHAM, HENRY . . .	Kerry, Montgomeryshire.
756	1882, Feb. 13	SWINSCOW, HAROLD EDWIN . .	2, Streatham Hill, S.W.
1115	1884, Feb. 25	TANNER, WILLIAM	Lyndhurst, Devon Road, Newport, Monmo shire.
771	1882, Feb. 27	TAPP, ARTHUR	15, Great George Street, S.W.

p. o.	*Date of Election.*	PROFESSIONAL ASSOCIATES.	
05	1882, Apr. 24	TARLETON, ROGER	4, Market Street, Northwich, Cheshire.
25	1883, Dec. 17	TAYLOR, EDWARD SYDNEY . .	Sandycroft, Chester.
12	1869, Jul. 26	TAYLOR, GEORGE.	Hillside House, Turner's Hill, Crawley, Sussex, and 17, Abchurch Lane, E.C.
26	1883, Dec. 17	TAYLOR, MATTHEW	Northchapel, Petworth, Sussex.
06	1882, Apr. 24	THEOBALD, HENRY	11, Finsbury Square, E.C., and United Arts Club, Dover Street, Piccadilly, W.
27	1883, Dec. 17	THOMPSON, ALFRED	Estate Department, South Eastern Railway, London Bridge, S.E.
85	1884, May 19	THOMPSON, WILLIAM. . . .	4, Eleanor Villas, St. Mary's Road, Ilford, Essex.
69	1883, Jan. 15	THORNTON, WILLIAM HENRY .	Castle Keep, Reigate, Surrey, and The Surveyor-General's Department, Ceylon.
57	1882, Feb. 13	THORPE, CHRISTOPHER . . .	Spring House, Calow, Chesterfield.
00	1884, Feb. 11	THURGOOD, ERNEST CHARLES .	27, Chancery Lane, W.C.
97	1886, Jan. 11	*†¶TIFFEN, JOHN HENRY . .	Conservancy Buildings, Hull.
92	1880, Dec. 13	TROLLOPE, HENRY CHARLES .	7, Hobart Place, S.W.
31	1884, Mar. 10	TRUMPER, JOHN ALFRED. . .	23, Lincoln's Inn Fields, W.C.
51	1884, Jan. 14	TUDOR, COLIN AUGUSTUS BUCHANAN	Booth Ferry Road, Goole, Yorkshire.
52	1884, Jan. 14	TUDOR, EDWARD CHARLES BUCHANAN	West House, Booth Ferry Road, Goole, Yorkshire.
94	1887, May 23	*TURNER, PERCY	7, Lower Brook Street, Ipswich, Suffolk.
68	1884, May 5	UDNY, AUGUSTUS CHARLES . .	142, Springfield Road, Preston, Brighton.
28	1887, Dec. 19	*VARLEY, THOMAS ERNEST . .	46, Queen Victoria Street, E.C.
08	1884, May 26	VIGERS, SIDNEY	18, Abingdon Street, S.W.
64	1888, Feb. 20	*WADE, HENRY	10, Pitt Street, Barnsley.
76	1880, Mar. 1	WALKER, LEON VICTOR . . .	Summerhill Road, West Green Road, N.
28	1883, Dec. 17	WALLIS, JOHN DAVID . . .	3, Old Palace Yard, S.W.
29	1883, Dec. 17	WARD, GEORGE	2, Lancaster Place, W.C.
26	1887, Dec. 19	*WARTON, WILFRED	Thurlow Villa, Bolingbroke Grove, Wandsworth Common, S.W.
30	1883, Dec. 17	WATERER, CLARENCE . . .	Dover House, Chertsey, Surrey.
01	1884, Feb. 11	WATKINS, ROBERT ARUNDEL .	Castle Combe, Chippenham.
36	1884, Dec. 8	*WATSON, JAMES BRUCE . . .	Place Farm, Doddinghurst, Brentwood, Essex.
90	1885, Dec. 7	*WATSON, JOHN, JUN. . . .	Estate Office, Shirburn, Tetsworth, Oxon.
79	1881, Dec. 19	*‖WEBB, JONAS MARSHALL . .	7, Prince's Street, Hanover Square, W.
31	1883, Dec. 17	WELLS, EDWARD OGBOURN . .	9, Whitehall Place, S.W.

† Institution Prizeman, 1885. ‖ President's Prize, 1884.

Dip. No.	*Date of Election.*	PROFESSIONAL ASSOCIATES.	
1169	1884, May 5	WELLS, WILLIAM HOWLEY . .	Estate Office, Evershot, Dorset.
930	1883, April 16	WESTON, GEORGE	177, Harrow Road, Paddington, W.
941	1883, April 30	WESTON, JOSEPH AURELIUS. .	83, High Street, Bedford.
1429	1887, Dec. 19	*WHALLEY, FREDERICK HERBERT	Ashfield House, Chester.
1430	1887, Dec. 19	*WHEELER, CHARLES TREVOR OGLE	186, Earl's Court Road, S.W.
1440	1888, Jan. 9	*WIGHT, NORMAN	Las Palmas, Grand Canary.
860	1882, Dec. 18	WILCOCKS, FREDERICK C. . .	87, Iverson Road, West Hampstead, N.W.
1170	1884, May 5	WILES, WILLIAM	Retreat Cottage, Grove Lane, Stamford Hill,
1237	1884, Dec. 8	*WILLARD, THOMAS	Estate Office, L. & N.W. Ry., Euston Station, N
378	1875, Jan. 18	WILLIAMS, LEONARD JAMES .	6, Furnival's Inn, E.C.
1304	1886, Jan. 25	*WILLIAMS, SIDNEY	Kelvin Lodge, Catford Bridge, S.E.
861	1882, Dec. 18	WILLIAMS, TOM	Estate Agency Office, Clarence Street, Staine
442	1876, Apr. 3	WILLIAMS, WILLIAM WELSBY .	Farnham, Surrey.
1083	1884, Jan. 28	WILLOUGHBY, CHARLES WILLIAM	22, Chancery Lane, W.C.
1449	1888, Jan. 23	*WILSON, WILLIAM EDWARD . .	St. Andrew's Chambers, Albert Square, M chester.
539	1879, Mar. 17	WOOD, HENRY	97, Gresham Street, E.C.
711	1882, Jan. 16	WOODWARD, WILLIAM . . .	The Turret, West Heath Road, Hampstead, N
1358	1887, Jan. 10	*WOOLNOUGH, JOHN WILLIAM .	Gladstone Villa, Beamsley Road, Eastbourne
1431	1887, Dec. 19	*WORTHINGTON, JAMES SCOTT .	4, Frederick's Place, E.C.
595	1880, Dec. 13	WRIGHT, THOMAS HAWKINS. .	Lundy Island, viâ Instow, North Devon.
1151	1884, Apr. 21	WYAND, BENJAMIN JOHN . .	Edgware, Middlesex.
599	1881, Jan. 10	YOUNG, ANDREW	The School Board for London, Victoria Emb ment, W.C.
524	1878, Dec. 9	YOUNG, MORGAN HENRY . .	30, Great James Street, W.C.

Associates.

Date of Election.		
1876, Mar. 20	Acland, Sir Thomas Dyke, Bart.	Killerton, Exeter.
1882, Mar. 27	Anderson, Charles Henry, Q.C., M.P.	9, King's Bench Walk, Temple.
1880, Dec. 13	Bankes, John Eldon	4, Elm Court, Temple.
1888, May 14	Barnes, George Frederick	Northumberland Chambers, Northumberland Avenue, W.C.
1868, Jul. 27	Barry, John Wolfe (*Associate of Council*)	23, Delahay Street, S.W.
1875, Dec. 13	Batten, John Winterbotham	3, Harcourt Buildings, Temple.
1876, Dec. 18	Bazalgette, Charles Norman	2, Paper Buildings, Temple.
1879, Feb. 3	Beale, James Samuel	28, Great George Street, S.W.
1869, Feb. 22	Bidder, George Parker, Q.C.	3, Paper Buildings, Temple.
1875, Feb. 1	Birch, Robert William Peregrine	5, Queen Anne's Gate, S.W.
1868, Jun. 23	Bramwell, Sir Fredk. Joseph, F.R.S.	5, Great George Street, S.W.
1887, Dec. 5	Bristowe, Arthur Lynn	2, Harcourt Buildings, Temple.
1884, Feb. 11	Bund, John W. Willis.	3, Stone Buildings, Lincoln's Inn, W.C.
1869, Jul. 26	Carlisle, William Thomas	8, New Square, Lincoln's Inn, W.C.
1871, Feb. 13	Castle, Edward James, Q.C.	8, King's Bench Walk, Temple.
1876, Nov. 13	Clarke, Daniel	Easton Street, High Wycombe, Bucks.
1883, Dec. 17	Clarke, Sir Edward, Q.C., M.P.	5, Essex Court, Temple.
1883, Dec. 17	Clode, Walter	3, Harcourt Buildings, Temple.
1886, Dec. 6	Clutton, Hubert Spencer	9, Whitehall Place, S.W.
1885, Jan. 12	Cripps, Charles Alfred	2, Mitre Court Buildings, Temple.
1883, April 16	Dethridge, Frank	Vestry Hall, Harrow Road, Paddington, W.
1883, April 30	Druce, Samuel Benjamin Large	2, Old Buildings, Lincoln's Inn, W.C.
1887, May 9	Elton, Charles Isaac, Q.C., M.P.	23, Cranley Place, Onslow Square, S.W., and 33, Chancery Lane, W.C.
1869, Feb. 22	Fowler, Sir John	2, Queen Square Place, S.W.
1886, Jan. 11	Fream, William	The College of Agriculture, Downton, Wilts.
1878, Feb. 11	Freeman, George Mallows	11, King's Bench Walk, Temple.
1878, Mar. 11	Freshfield, Edwin	5, Bank Buildings, E.C.
1876, Mar. 20	Freshfield, William Dawes	5, Bank Buildings, E.C.

Date of Election.	ASSOCIATES.	
1879, Apr. 28	Gepp, Charles Bramston Osborne	Chelmsford, Essex.
1874, Feb. 16	Goldney, Gabriel Prior . .	Remembrancer's Office, Guildhall, E.C.
1869, Jan. 11	Grantham, Richard Boxall .	Northumberland Chambers, Northumberland Avenue, W.C.
1874, Jan. 5	Grantham, Richard Fuge . .	Northumberland Chambers, Northumberland Avenue, W.C.
1881, Dec. 19	Groves, William	28, Great George Street, S.W.
1880, Dec. 13	Gully, William Court, Q.C., M.P.	Farrar's Buildings, Temple.
1881, Dec. 19	Halsey, Edward Joseph . .	9, Drayton Gardens, South Kensington, S.W.
1882, Mar. 27	Hamilton, Henry Best Hans .	1, Brick Court, Temple.
1884, May 5	Hamond, Thomas Astley Horace	62, Lincoln's Inn Fields, W.C.
1881, Dec. 19	Head, John Merrick . . .	Reigate, Surrey.
1875, Dec. 13	Higgin, William Housman, Q.C.	4, St. James' Square, Manchester.
1875, Jan. 4	Hill, Alexander Staveley, Q.C., M.P.	13, King's Bench Walk, Temple; and Oxley Manor, Stafford.
1887, Jan. 24	Hudson, Alfred Arthur . .	5, Paper Buildings, Temple.
1880, Dec. 13	James, Sir Henry, Q.C., M.P. .	1, New Court, Temple.
1885, Jan. 12	Jongh, John Isidore de . .	San José, Costa Rica, Central America.
1887, May 23	Kinch, Edward	Royal Agricultural College, Cirencester.
1873, April 21	King, William	Gas Office, Duke Street, Liverpool.
1874, Feb. 2	Ledgard, Frederick Thomas Durell, Q.C.	1, Temple Gardens, Temple.
1874, Feb. 16	Littler, Ralph Daniel Makinson, Q.C.	4, Temple Gardens, Temple.
1869, Mar. 8	Lott, Joseph . . .	19, Great George Street, S.W.
1888, Mar. 5	Luard, Major-Gen. Charles Edward	Ightham Knoll, near Sevenoaks, Kent.
1874, Feb. 16	Marriott, The Right Hon. Sir William Thackeray, Q.C., M.P.	6, Crown Office Row, Temple.
1886, Dec. 6	Marshall, Frederick . . .	3, Harcourt Buildings, Temple.
1879, Jan. 6	Meysey-Thompson, Albert Childers	41, Parliament Street, S.W.; and 1, King's Bench Walk, Temple.
1875, Jan. 4	Michael, William Henry, Q.C.	4, King's Bench Walk, Temple, E.C.
1882. Dec 18	Munton, Francis Kerridge .	95A, Queen Victoria Street, E.C.
1869, Feb. 22	Philbrick, Fredk. Adolphus, Q.C.	Lamb Building, Temple.
1888, Mar. 19	Pollard, Edward Hutchinson	3, Elm Court, Temple.

Date of Election.	ASSOCIATES.	
1884, Feb. 11	POPE, SAMUEL, Q.C.	38, Parliament Street, S.W.
1887, Jan. 24	POTTER, WILLIAM, Q.C. . .	5, Paper Buildings, Temple.
1886, Jan. 11	PROCTER, FOSTER WILFRED .	36, Lincoln's Inn Fields, W.C.
1871, Feb. 27	QUICK, JOSEPH, JUN. . . .	29, Great George Street, S.W.
1868, Nov. 9	REES, JOHN CHARLES . . .	13, Great George Street, S.W.
1885, Jan. 26	RICKARDS, ARTHUR GEORGE .	11, King's Bench Walk, Temple.
1882, Jan. 16	RIGG, HERBERT ADDINGTON .	9, King's Bench Walk, Temple.
1883, April 2	RYDE, WALTER CRANLEY . .	1, Brick Court, Temple.
1884, Dec. 8	SCOTT, THE HON. HENRY ROBERT	Springfield, Coldstream, N.B.
1888, Apr. 30	SETH-SMITH, FREDERICK . .	Penn Croft, Crondall, Hants.
1887, Dec. 19	SHIELD, HUGH, Q.C. . . .	2, Gray's Inn Square, W.C.
1886, Apl. 12	SHOPPEE, GERALD AUGUSTINE .	7, Furnival's Inn, E.C.
1879, Apr. 28	SLADEN, ST. BARBE	1, Delahay Street, S.W.
1879, Apr. 28	SMITH, LUMLEY, Q.C. . . .	4, Paper Buildings, Temple.
1884, Jan. 14	STATHAM, WILLIAM ARNOLD .	12, King's Bench Walk, Temple, and 38, Parliament Street, S.W.
1882, Jan. 16	STEPHENS, PEMBROKE S., Q.C. .	1, Plowden Buildings, Temple.
1886, May 3	STEVENS, WILLIAM RICHARD .	6, St. Thomas Street, S.E.
1881, Jan. 24	STEVENSON, GEORGE WILSON .	38, Parliament Street, S.W.
1875, Jan. 4	STRUTT, FREDERICK, THE HON.	Milford House, Derby.
1877, Dec. 10	SUTTON, HENRY	Farrar's Building, Temple.
1888, Mar. 5	TAYLOR, JOHN HERBERT . .	5, Great George Street, S.W.
1880, Dec. 13	THOMAS, HUBERT	Watford, Herts.
1868, Jul. 20	TROLLOPE, GEORGE FRANCIS .	15, Parliament Street, S.W.
1887, Jan. 10	VENNING, JOHN JAMES EDGCOMBE	Devonport.
1885, May 18	WARREN, REGINALD AUGUSTUS.	99, Great Russell Street, W.C.
1876, Nov. 27	WEBSTER, SIR RICHD. EVERARD, Q.C., M.P. (*Associate of Council*)	2, Pump Court, Temple.
1884, May 26	WELLS, ALFRED DODD . . .	Sotwell Hill, Wallingford, Berks.
1886, May 17	WHEELER, THOMAS WHITTENBURY, Q.C.	4, Crown Office Row, Temple.
1871, Feb. 13	WHITE, FREDERICK MEADOWS, Q.C.	4, Paper Buildings, Temple, and 42, Sussex Gardens, Hyde Park, W.
1873, Jan. 27	WHITE, THOMAS JENNINGS . .	8, Whitehall Place, S.W.
1876, Dec. 18	WILL, JOHN SHIRESS, Q.C., M.P.	2, Garden Court, Temple.
1875, May 15	WINCKWORTH, LEWIS . . .	31, Abingdon Street, S.W.
1870, Jan. 10	WING, THOMAS TWINING . .	17, Woburn Square, W.C.
1882, Dec. 18	WOOLF, SIDNEY	7, King's Bench Walk, Temple.

Students.

Passed Preliminary Examination.		
1888	ALDRIDGE, JOSEPH ARTHUR .	56, Shooter's Hill Road, Blackheath, S.E.
1887	AYLEN, CECIL HUGH . . .	London Colney, St. Alban's, Herts.
1886	BAGOT, HAROLD FREDERIC. .	Castle House, Shrewsbury.
1886	BALL, JAMES B.	The Glen, Cowes, Isle of Wight.
1888	BARCLAY, THOMAS	Lonsdale House, Moseley, Birmingham.
1887	BEADEL, MAURICE FREDERICK .	97, Gresham Street, E.C.
1886	BELCHER, EDWARD JOHN . .	24, Charing Cross, S.W.
1886	BRADY, RALPH HOLLINSHED .	Lark Hill House, Stockport.
1886	BRIDGFORD, LEO APPLETON .	Southfield, Crumpsall, Manchester.
1888	BRIGHTMAN, HERBERT EDWARD	62, Old Broad Street, E.C.
1888	BUCKLAND, HERBERT TUDOR .	Oaklands, Augusta Road, Moseley, Birmingham
1887	BURTON, PERCY CHARLES . .	The College of Agriculture, Downton, Wilts.
1886	CAMBRIDGE, WILLIAM JAMES .	17, Prospect Street, Reading, Berks.
1886	CHAPMAN, GEORGE HERBERT .	49, Parliament Street, S.W.
1887	CHARLES, ARTHUR GEORGE. .	18, Ampton Street, W.C.
1888	CHURCH, LEONARD RONALDSON .	Rokesly, Middle Lane, Hornsey, N.
1888	COBHAM, GEORGE WILLIAM . .	3, Edwin Street, Gravesend.
1886	COLLINS, ADRIAN CHARLES . .	61, Old Broad Street, E.C.
1887	CRAWSHAY, LIONEL RUTTLEDGE	Ystrad Mynach, near Cardiff.
1888	CROOKES, CHARLES REGINALD .	Melrose, Church Road, Richmond, Surrey.
1887	CROUCH, JAMES LEONARD . .	Cheriton, The Ridgeway, Enfield.
1886	DAVEY, HENRY THOMAS . .	Cornwallis Terrace, Hastings, Sussex.
1887	DAWSON, HUBERT NORTON . .	Langley Park, Watford, Herts.
1887	DEBENHAM, HORACE BENTLEY .	Cheshunt Park, Herts.
1887	DENDY, WILLIAM COOPER . .	6, Springfield Villas, New Southgate, N.
1887	DICKINS, ALFRED WILLIAM. .	Arkindale, Putney Hill, S.W.
1887	DIXON, FRANCIS EDWARD . .	9, Winckley Square, Preston.
1886	ELTON, CECIL WILLIAM STUART	13, St. James's Square, Bath, Somerset.
1888	ELLWEL, MORTIMER CECIL . .	36, Arundel Square, Barnsbury, N.
1885	EVES, WILLIAM LIONEL . . .	Milton House, Uxbridge.

Passed Preliminary Examination.	STUDENTS.	
1888	FOSTER, FRANK	37, Gower Street, W.C.
1887	GALSWORTHY, VINCENT SOMERS	6, Queen's Gate, S.W.
1888	GARRARD, ARTHUR NORMAN . .	8, Kensington Court, W.
1888	GARROD, JOHN REBBECK . .	Vernon Villa, Surbiton Hill, Kingston-on-Thames.
1888	GIDDY, OSMOND HORTON .	Elmsleigh, Staines, Middlesex.
1885	GOODMAN, PERCY.	Alverbank, West Road, Clapham Park, S.W.
1888	GOVER, WILLIAM BRAMWELL .	80, Widmore Road, Bromley, Kent.
1886	GRIMES, RALPH FEARON . .	Fernbank, Balham Hill, S.W.
1886	GROVER, ARTHUR	East Lynn, Woodberry Down, Stamford Hill, N.
1888	HADLEY, FRANK	Cambridge Road, Moseley, Birmingham.
1888	HAMPTON, GEORGE FREDERICK WILLIAM	Woodfield, Putney Hill, S.W.
1887	HARRIS, FREDERICK JOHN . .	Harestock House, Winchester, Hants.
1886	HASLAM, DRYLAND, JUN. . .	Warren House, Caversham, near Reading.
1886	HAWKER, CLAUDE JULIAN . .	37, Cadogan Place, S.W.
1888	HAWKINS, FRANCIS HENRY GEORGE	Dorset House, Mistley, Essex.
1888	HAWKINS, FREDERICK THOMAS .	18, Burr Street, Aldgate, E.C.
1888	HAYWARD, FREDERICK GEORGE .	St. Stephen's, Godwyne Road, Dover.
1884	HOMAN, HUBERT FRANKLIN. .	The New Friars, Boley Hill, Rochester.
1887	HUDSON, EDWARD REGINALD .	12, Queen Anne Terrace, Albert Road, Battersea Park, S.W.
1885	JENKINS, HENRY LEWIN . . .	50, Dudley Road, Grantham.
1886	JESSETT, CHARLES EDWARD VERNON.	4, Freke Road, Lavender Hill, S.W.
1887	JOYCE, HARRY WARD . . .	Blackfordly, Burton-on-Trent.
1888	KAYE, EDWARD PERCIVAL . .	Grove Hall, Wakefield.
1888	LAWLEY, FREDERICK WILLIAM .	165, Strand, W.C.
1888	LICHTENBERG, FRANZ BALZAR .	71, Bedford Street, Liverpool.
1888	LINSELL, WILLIAM DEANE . .	Brightling Mount, Park Road, Bevois Hill, Southampton.
1887	LUTENER, OWEN CAPEL HARRISON	Cynnon Cottage, Llanidloes.
1887	MACKENZIE, GEORGE ARCHIBALD	By House, Great Dunmow, Essex.
1885	MANN, ROBERT BAGSHAW . .	29, Great George Street, S.W.
1886	MARTIN, HEBER GAMBLING .	Highfield House, Littleport.
1888	MARTYN, ARCHIE C. C. . . .	Retreat, Horrabridge, Devonshire.

Passed Preliminary Examination.	STUDENTS.	
1887	Messom, Francis William. .	Grosvenor Road, Twickenham.
1886	Michelmore, Herbert . .	Berry Pomeroy, Totnes, Devon.
1888	Molyneux, Herbert Ernest .	Sefton House, Cazenove Road, Stamford Hill, N.
1887	Morrish, Hugh Kenneth . .	Royal Agricultural College, Cirencester.
1888	Morter, Sidney Pelham . .	Phœnix Villa, Forest Lane, Essex.
1888	Muir, James	Staunton Harold, Branksome Park, Bournemouth.
1887	Nockolds, Alfred George .	Saffron Walden, Essex.
1888	Oakley, Christopher Percival	Cromlix, Chislehurst, Kent.
1886	Oakley, John Hubert. . .	Royal Agricultural College, Cirencester.
1888	Ogden, Michael Guy . . .	4, Lingfield Road, Wimbledon, Surrey.
1887	Parris, Charles John. . .	Glencairn, Cornwallis Terrace, Hastings.
1888	Payne, Harry George . . .	67, Down's Road, Clapton, E.
1888	Pochin, Thos. Clement Parkyns	Braunston House, Leicester.
1887	Pownall, Guy Frank . . .	83, Onslow Square, S.W.
1887	Prebble, Ernest	95, Highbury New Park, N.
1887	Preston, Samuel	Woburn, Beds.
1888	Price, Matthew Burn . . .	Lymore, Croydon Road, Beckenham, Kent.
1887	Punchard, Frederick Burt .	Kirkby Lonsdale, Westmoreland.
1887	Robinson, Arthur John . .	Hackwood Park, Basingstoke, Hants.
1887	Robinson, John Kendall . .	Underley Estate Office, Kirkby Lonsdale, Westmoreland.
1888	Rowley, William Taylor . .	Histon, near Cambridge.
1886	Saunders, Charles Herbert.	24, Westbourne Park Road, Bayswater, W.
1887	Savill, Edwin	39, New Broad Street, E.C.
1888	Sedgwick, Rupert William .	The Stalls, Worcester.
1887	Sequeira, Ernest Rackwitz .	Crescent House, Cassland Crescent, South Hackney, E.
1887	Smith, James	8, Oxford Street, High Wycombe.
1888	Spelman, William Wilton Rix	Ivy House, Eaton, Norwich.
1886	Stainton, Francis Charles .	69, Ondine Road, East Dulwich, S.E.
1887	Sturge, Robert Tregelles .	101, Pembroke Road, Clifton, Bristol.
1887	Sturley, Arthur Dyson . .	6, Willow Bridge Road, Canonbury, N.
1888	Summerfield, Joseph Charles	Stafford Villa, Garlies Road, Forest Hill, S.E.
1888	Swainson, Francis Charles John	Forest Row Vicarage, East Grinstead, Sussex

Passed Preliminary Examination.	STUDENTS.	
1888	Taylor, William Harry . .	Ingleside, Trafalgar Road, Moseley, Birmingham.
1887	Thurgood, Albert Edward .	Rosebrook, Abbeville Road North, Clapham Park, S.W.
1886	Tilly, Hubert Douglas . .	9, Crauford Rise, Maidenhead, Berks.
1888	Verity, Ernest George . .	38, Cathcart Road, S.W.
1886	Watson, Richard	Plymouth Road, Totnes, Devon.
1887	Weatherall, Edward John .	22, Chancery Lane, W.C.
1887	West, Conrad Kershaw . .	247, Hagley Road, Edgbaston, Birmingham.
1888	Wilson, Frederick Robert .	Fair Lea, 21, Ramsden Road, Balham, S.W.
1886	Wordley, Alexander George	15, Bartholomew Road, Kentish Town, N.W.

Note.—To ensure the regular transmission of the Papers and Notices, it is particularly requested that any changes of address be communicated at once to the Secretary.

Members of the Institution who have Passed the Qualifying Examination.

As Fellows—

Arch, Arthur Joseph Edwin	China Railway Company, Tientsin, North China.
Bedells, Charles Herbert	6, John Street, Bedford Row, W.C.
*Benson, Robert Alan	Duchy of Cornwall Office, Buckingham Gate, S.W.
Bontor, Frank Arthur	29, Fleet Street, E.C.
*Buckland, Alfred Virgoe	66, Cannon Street, E.C.
*Burrows, Alfred John	41, Bank Street, Ashford, Kent.
Day, William, Jun.	23, High Street, Maidstone, Kent.
*Drew, Henry Alban	15, Queen Street, Exeter.
Dickson, Thomas Arthur	28, Cross Street, Manchester, Lancashire.
*Furber, Percy Norman	6, Upper Hamilton Terrace, N.W.
Gibb, William Pashley	75, Stamford Street, S.E.
Godfrey, Robert	Valentine Road, King's Heath, near Birmingham.
*Hansell, Reginald Goddard	Lonsdale Chambers, 27, Chancery Lane, W.C.
*Hasluck, Lancelot Gerald	Green Hill Park, near Barnet, Herts.
Horne, William Edgar	84, Basinghall Street, E.C.
Johnson, Henry	37, Walbrook, E.C.
Jones, Henry Arthur	53, Maida Vale, W.
*King, Alfred	6, Spring Gardens, S.W.
*Massie, Frank	St. Paul's Chambers, Sheffield.
Michelmore, Alfred	Berry House, Totnes, Devon.
*Millward, Isaac	Office of Public Works, Athlone, Ireland.
Moore, Harold Edward	1, Essex Street, Strand, W.C.
North, George Frederic	Wroxton Estate Office, near Banbury, Oxon.
*Pain, James	Borough, Micheldever, Hants.
Paull, Alan	6, Quality Court, Chancery Lane, W.C.
Peto, James Winder	37, Freeland Road, Bromley, Kent.
Pilditch, Philip Edward	17, Parliament Street, S.W.
*Rolleston, William Gustavus Stanhope	Grey Friars, Leicester.
Roods, Alfred	The School Board for London, Victoria Embankment, W.C.
Silcock, Thomas Ball	14, Abbey Churchyard, Bath.
Smith, William	Upper Farm, Abbot Salford, Evesham, Worcestershire.
*Tiffen, John Henry	Conservancy Buildings, Hull.
Treadwell, Henry John	5, Agar Street, Strand, W.C.
Vernon, Arthur	Borshams, High Wycombe, Bucks.
Vernon, Walter Liberty	4, Trinity Street, Hastings.

** Those Members to whose names a star is affixed, although they have passed the Fellowship Examination, are not yet transferred to the Class.*

* *As Professional Associates—*

Adkin, Beniah Whitley . .	Brandon House, Morden Hill, Lewisham, S.E.
Arch, Arthur Joseph Edwin .	China Railway Company, Tientsin, North China.
Arnott, John	Church Street, Woodbridge, Suffolk.
Austin, Richard, Jun.	Bishop's Waltham, Hants.
Baker, Cecil Cautley . . .	21, Bedford Row, W.C.
Barratt, Harry	Middle Street, Stourbridge, Worcestershire.
Bateman, Arthur Charles .	Oriel House, Witney, Oxon.
Beard, Edwin Thomas . . .	3, St. Catherine's, Lincoln.
Bedells, Charles Herbert .	6, John Street, Bedford Row, W.C.
Benson, Robert Alan . . .	Duchy of Cornwall Office, Buckingham Gate, S.W.
Birch, Walter de Hoghton .	Kerry, Montgomeryshire.
Birkett, Tom	Foxton House, Penrith, Cumberland.
Blundell, Harry	Cauldon Place, Shelton, Stoke-upon-Trent.
Booth, John Frederick . .	25, Windle Street, St. Helen's, Lancashire.
Bousfield, Edwin Vaughan Davenport	99, Gresham Street, E.C.
Briggs, John	Metropolitan Board of Works, Spring Gardens, S.W.
Brown, William Edward . .	Reading Villa, Denmark Road, Watford, Herts.
Buckland, Alfred Virgoe .	66, Cannon Street, E.C.
Burrows, Alfred John . .	41, Bank Street, Ashford, Kent.
Bushell, Henry	1, Finsbury Circus, E.C.
Buss, Fleetwood George William	37, South Hill Park, Hampstead, N.W.
Callendar, William Jackson	Maryborough, Queensland, Australia.
Campbell, Colin	Canford Estate Office, Wimborne, Dorsetshire.
Carter, Alfred Presley . .	2, Steele's Road, Haverstock Hill, N.W.
Carter, Frank Wellington .	22, Great George Street, S.W.
Coales, Herbert George . .	Beaconfield's Place, Southall.
Collingham, J. Cyril Lees .	16, Whitehall Place, S.W.
Collins, Marcus E.	61, Old Broad Street, E.C.
Crawter, John, Jun. . . .	4, Great James Street, Bedford Row, W.C.
Crosland, Walter	Mayfield, Sussex.
Day, William, Jun.	23, High Street, Maidstone, Kent.
Done, John James	10, Finsbury Square, E.C.
Drew, Henry Alban . . .	15, Queen Street, Exeter.
Dunning, Bernard Simon . .	41, Claverton Street, S.W.
Eiloart, Alfred	40, Chancery Lane, W.C.
Ellis, Ralph Staples . . .	69, Palace Gardens Terrace, Kensington, W.
Eve, Herbert Trustram . .	2, St. Paul's Square, Bedford.
Furber, Percy Norman . .	6, Upper Hamilton Terrace, N.W.
Gibb, William Pashley . .	75, Stamford Street, S.E.

**This list does not include the names of those who have passed the Examination but have not yet joined the Institution.*

Professional Associates—continued.

Gibbon, William Jacomb . .	3, Verulam Buildings, Gray's Inn, W.C.
Golightly, Charles Hugh .	Old Lodge, Lingfield, Surrey.
Green, Thomas John . . .	1, Surrey Villas, Sevenoaks, Kent.
Green, Thomas Joseph . .	28 and 29, St. Swithin's Lane, E.C.
Greenop, Edward	74, Bonham Road, Brixton Rise, S.W.
Halkyard, William Redford .	The Firs, Knutsford.
Hall, William Timothy . .	Uppington, Wellington, Salop.
Halton, Harry Russell . .	Marsh House, Lower Tottenham, N.
Hansell, Reginald Goddard.	Lonsdale Chambers, 27, Chancery Lane, W.C.
Harding, Frederick Allcroft	Holmfield, near Gipsy Lane, Barnes Common, S.W.
Hasluck, Lancelot Gerald .	Green Hill Park, New Barnet, Herts.
Hebblethwaite, Charles Henry	1, Norfolk Place, Halifax, Yorkshire.
Henderson, Richard . . .	20, George Street, Edinburgh.
Hilliard, George Edward .	Chelmsford, Essex.
Hooper, Cecil Henry . .	Elmleigh, Beckenham, Kent.
Ivimey, Alfred	74, Lavender Hill, S.W.
Johnston, Walter Henry . .	6, Latham Street, Preston.
Jonas, Harry Marshall . .	Brooklands Avenue, Cambridge.
Jonas, Samuel Marshall . .	Brooklands Avenue, Cambridge.
Jull, William Vincent . .	Wrotham Lodge, Streatham Hill, S.W.
King, Alfred	6, Spring Gardens, S.W.
King, William Isaac . . .	The Grange, Highgate, N.
Lee, John Wilfrid . . .	Fairholme, Creffield Road, Colchester, Essex.
Lowe, Charles Robert . .	Hampstead Vestry Hall, Haverstock Hill, N.W.
Maddox, Charles Ralph . .	20, Baker Street, W.
Massie, Frank	St. Paul's Chambers, Sheffield.
Maxwell, Francis William .	29, Princess Street, Manchester.
Mead, John Henry . . .	9, Whitehall Place, S.W.
Melrose, Frank	Heslington, York.
Millward, Isaac.	Office of Public Works, Athlone, Ireland.
Mixer, Edward	80, Cheapside, E.C.
Moore, Harold Edward . .	1, Essex Street, Strand, W.C.
Moyes, John Helenus . . .	26, Trinity Street, Cambridge.
Pain, James	Borough, Micheldever, Hants.
Parry, Richard	Midlothian Cottage, Woodford Green, Essex.
Paterson, Andrew Thompson.	4, Hamilton Place, Totton, Southampton.
Paull, Alan	6, Quality Court, Chancery Lane, W.C.
Pelham-Clinton, Hubert Edward	Moor Court, Stroud, Gloucestershire.
Perkins, Walter Frederick.	Portswood House, Southampton, Hants.
Perks, Sidney	Soho Lodge, Wandsworth Common, S.W.

Professional Associates—continued.

PETRE, ROBERT GEORGE . .	Springfield, Chelmsford, Essex.
PHILLIPS, WILLIAM DEARLOVE.	High Wycombe, Bucks.
PHYSICK, WALTER FREDERICK.	136, Marylebone Road, N.W.
PRATER, THOMAS HERBERT .	Farnborough, Banbury, Warwickshire.
RAND, JOHN	Belle Street, Reigate, Surrey.
ROBINSON, ALFRED WHITMORE .	28, Cresswell Grove, Albert Park, Didsbury, Manchester.
ROLLESTON, WILLIAM GUSTAVUS STANHOPE.	Grey Friars, Leicester.
ROODS, ALFRED	The School Board for London, Victoria Embankment, W.C,
RUNDLE, EDWARD COLLINS . .	Bedford Office, Tavistock, Devon.
SADLER, GEORGE WILLIAM, JUN.	6, Clarence Parade, Cheltenham.
SALT, REGINALD NOWELL . .	Quarry Place, Shrewsbury.
SATCHELL, CHARLES	Alexandria, Egypt.
SELBY, JOHN BASELY . . .	Atherton Old Hall, Leigh, Manchester.
SHAW, ARTHUR	Ramsden Estate Offices, Railway Street, Huddersfield.
STURGE, THEODORE	34, Corn Street, Bristol.
STURGESS, JOHN MOORE . .	Penshurst Park, near Tunbridge, Kent.
SWETENHAM, HENRY	Kerry, Montgomeryshire.
TIFFEN, JOHN HENRY . . .	Conservancy Buildings, Hull.
TURNER, PERCY	7, Lower Brook Street, Ipswich, Suffolk.
VARLEY, THOMAS ERNEST . .	46, Queen Victoria Street, E.C.
WADE, HENRY	10, Pitt Street, Barnsley.
WARTON, WILFRED	Thurlow Villa, Bolingbroke Grove, Wandsworth Common.
WATSON, JAMES BRUCE . . .	Place Farm, Doddinghurst, Brentwood, Essex.
WATSON, JOHN, JUN.	Estate Office, Shirburn, Tetsworth, Oxon.
WEBB, JONAS MARSHALL . .	7, Prince's Street, Hanover Square, W.
WHALLEY, FREDERICK HERBERT	Ashfield House, Chester.
WHEELER, CHARLES TREVOR OGLE	186, Earl's Court Road, S.W.
WIGHT, NORMAN.	Las Palmas, Grand Canary.
WILLARD, THOMAS	Estate Office, L. & N. W. Ry., Euston Station, N.W.
WILLIAMS, SIDNEY	Kelvin Lodge, Catford Bridge, S.E.
WILSON, WILLIAM EDWARD .	St. Andrew's Chambers, Albert Square, Manchester.
WOOLNOUGH, JOHN WILLIAM .	Gladstone Villa, Beamsley Road, Eastbourne.
WORTHINGTON, JAMES SCOTT .	4, Frederick's Place, E.C.

Members Transferred during the Year 1887 from the Class of Professional Associates to that of

Fellows—

Arch, Arthur Joseph Edwin	China Railway Company, Tientsin, North China.
Badcock, Philip	9, Whitehall Place, S.W.
Bedells, Charles Herbert	6, John Street, Bedford Row, W.C.
Blosse, Edward F. Lynch	Charles Street Chambers, Cardiff.
Castle, Sydney Charles Courtenay	40, Chancery Lane, W.C., and Neustead, Auckland Road, Upper Norwood, S.E.
Day, William, Jun.	23, High Street, Maidstone, Kent.
Ellis, Ernest Harold	132, High Street, Guildford.
Fenning, Herbert Samuel	Bedford Estate Office, Bedford.
Fuller, George John	85 & 87, Gresham Street, E.C.
Gibb, William Pashley	75, Stamford Street, S.E.
Kaye, John Edward	Grove Hall, Wakefield
Nottage, William Triggs	High Street, Windsor.
Roods, Alfred	The School Board for London, Victoria Embankment, W.C.
Roper, William	Lansdowne Place, Tunbridge Wells, Kent,
Sherwin, Joseph Henry	16, Whitehall Place, S.W.
Taylor, John William	33, Westgate Road, Newcastle-on-Tyne.
Thurnall, John Edward	Royston, Herts.
Wakefield, Godfrey	40, Chancery Lane, W.C.
Waters, William Richard	145, Dulwich Road, Herne Hill, S.E.
Watney, Walter Daniel	33, Poultry, E.C.
Willmot, John	6, Waterloo Street, Birmingham.
Wreathall, Robert T.	30, Walbrook, E.C.

Members who Died during the Year 1887.

Honorary Members—

Lefévre, Francois Etienne	Sucy, Seine et Oise, France.
Ridley, George	2, Charles Street, Berkeley Square, W.

Fellows—

Fowler, William	95, Colmore Row, Birmingham.
Fuller, Francis	63, S Aubyn's Place, Cliftonville, Hove.
Greaves, John	Penistone, near Sheffield.
Huskinson, Thomas	Epperstone, Nottingham.
Martin, Henry Osborne	7, Adam Street, Adelphie, W.C.
Nixon, Thomas	12, Darmouth Street, S.W.
Tootell, Joseph, Sen.	Maidstone, Kent.
Williams, George Barnes	Frederick's Place, E.C.
Woodthorpe, Edmund	2, Coleman Street Buildings, E.C.

Professional Associate—

Harland, Arthur	Percy Chambers, 15, Charlotte Street, W.

Provincial Committees.

DEVON AND CORNWALL COMMITTEE.

Chairman—1888-89.

JOHN DREW, 15, Queen Street, Exeter.

BODY, JOHN BOND	Old Town Chambers, Plymouth.
BROWN, GEORGE	Roborough House, Barnstable.
COOPER, JOHN GROVES . . .	Bideford.
DREW, HENRY	15, Queen Street, Exeter.
DYMOND, FRANCIS WILLIAMS .	Exeter.
ELLIOTT, CHARLES	The Fawns, Ermington, Ivy Bridge.
FOSTER, JOSEPH BURGESS . .	4, Cambridge Street, Plymouth.
LETHBRIDGE, WALTER . . .	1, Leigham Villas, Plymouth.
LOCK, WILLIAM HENRY . . .	Instow.
MICHELMORE, ALFRED . . .	Berry House, Totnes.
RENDELL, ARTHUR STEPHEN .	Homefield, Coffinswell, Newton Abbott.
SMYTH-RICHARDS, GEORGE COBLEY	Wistlandpound, and 6, Castle Street, Barnstaple.
SYMONS, PHILIP	Fore Street, Totnes.
TANNER, JOHN MELHUISH . .	Wembworthy.
THORNE, ARNOLD	Cross Street, Barnstaple.
WARD, DANIEL	Hewton, Beerferris.
WARD, FRANK	Burnville, Bridestowe.
WARE, CHARLES EDWIN . . .	Gandy Street Chambers, Exeter.
WATT, ALEXANDER	Princetown.
WINDER, GEORGE ALEXANDER .	Escott Estate Office, Fairmile, Ottery St. Mary.

KENT COMMITTEE.

Chairman—1888-89.

GEORGE LANGRIDGE, Tunbridge Wells.

BALLARD, EDMUND	Elwick House, Ashford.
BRACKETT, ARTHUR WILLIAM .	27, High Street, Tunbridge Wells.

Brackett, William	27, High Street, Tunbridge Wells.
Burrows, Alfred Joe	Surrenden Estate Office, Pluckley.
Cobb, Herbert Mansfield	Higham.
Cobb, Robert Lake	Higham.
Cronk, Edwyn Evans	Sevenoaks.
Cronk, Frank	Sevenoaks.
Cronk, William Henry	Sevenoaks.
Dann, Henry	Bexley.
Day, William, Jun.	23, High Street, Maidstone.
Elgar, J. Edward	Crockshard, Wingham.
Fry, George Frederick	46, London Road, Dover.
Hayward, Henry	Dover.
Jackson, William Tress	117, High Street, Sittingbourne.
Lepper, John Harrage	Town Hall, Bromley.
Neame, Frederick, Jun.	Macknade, Faversham.
Neve, Herbert	Hole Park, Rolvenden.
Payne, Frederick	Town Hall, Bromley.
Roper, William	Lansdowne Place, Tunbridge Wells.
Seymour, Richard Arthur Hamilton	Preston Hall Farm, Aylesford.
Slater, George	Canterbury.
Tootell, Charles	13, King Street, Maidstone.
Tootell, Joseph	13, King Street, Maidstone.
Troutbeck, Robert	Maidstone.
Waterman, James	Ashford.
Waterman, Richard	20, Week Street, Maidstone.
Webb, George	Tunstall, Sittingbourne.
Wilks, Richard	Little Mongeham, near Deal.

LEICESTERSHIRE, NORTHAMPTONSHIRE, & RUTLAND COMMITTEE.

Chairman—1888-89.

John Fowke Lancelot Rolleston, Grey Friars, Leicester.

Bolam, Charles Godfrey	Estate Office, Boughton House, Kettering, Northamptonshire.
Cave, Thomas Newman	Horton, Northamptonshire.
Clare, Edward Lovell	33, Friar Lane, Leicester.
Clough-Taylor, Horace George	Friar Lane, Leicester.

Draper, Arthur Thomas . .	Friar Lane, Leicester.
Edwardes, Charles Bidwell .	The Precincts, Pererborough.
Everard, John Breedon . .	6, Millstone Lane, Leicester.
Fisher, Edward Knapp . .	Market Harborough, Leicestershire.
German, George	Ashby-de-la-Zouch.
German, John	Ashby-de-la-Zouch.
Hodson, George	Town Hall, Loughborough.
Humphreys, Henry . . .	Woodhouse, Loughborough.
Joyce, John Hall	Blackfordby, Leicestershire.
Laurance, John	Sexton Barns, Peterborough.
Law, Edmund	29, Abingdon Street, Northampton.
Parnell, Robert	Oundle, Northamptonshire.
Thorpe, William	Nailstone, Hinckley.
Woolley, William Edward .	Loughborough.

NORTHERN COUNTIES COMMITTEE.

Chairman—1888-89.

Jacob Wilson, Chillingham, Alnwick.

Armstrong, Thomas John . .	14, Hawthorne Terrace, Newcastle.
Bolam, William Thomas . .	Cross House, Westgate Road, Newcastle.
Brydon, Robert	The Dene, Seaham Harbour, Durham.
Curry, Henry John . . .	58, High Street, Stockton-on-Tees.
Dent, Ralph John	Streatham House, Darlington.
Eade, Arthur Willoughby French	Feethams, Darlington.
Hedley, John Hunt . . .	55, John Street, Sunderland.
Hedley, Thomas Fenwick .	Sunderland.
Hedley, Thomas Fenwick, Jun.	Sunderland.
Heskett, William James . .	24, King Street, Penrith, Cumberland.
Holme, John	Owlet Ash, Milnthorpe, Westmoreland.
Hudson, James	Lowther, Penrith, Cumberland.
Minter, William	81, Bondgate, Darlington.
Parmeter, Frank	South View House, West Parade, Newcastle.
Potts, Joseph Jun.	North Cliff, Roker, Sunderland.
Punchard, Frederick . . .	Underley Estate Office, Kirkby Lonsdale, Westmoreland.
Sample, Thomas	Bothal Castle, Morpeth, Northumberland.
Scarth, William T. . . .	Raby Castle, Darlington.
Stanley-Dodgson, Stanley Dickinson	Estate Office, Somerset House, Whitehaven, Cumberland.

Taylor, John William	33, Westgate Road, Newcastle.
Tomlinson, Thomas	Estate Office, Alnwick Castle.
Waistell, William	Barnard Castle, Durham.
Wall, George Young	Exchequer Buildings, Durham.
Wallace, Henry	Trench Hall, Gateshead-on-Tyne.
Webster, Alexander	100, Highgate, Kendal, Westmoreland.

SOMERSET, DORSET, AND BRISTOL COMMITTEE.

Chairman—1888-89.

James Edward Knollys, Fitzhead Court, Taunton.

Allen, George	Estate Offices, Stourbridge, Dorset.
Bennett, Thomas Oatley	Bruton, Somerset.
Crickmay, George Rackstrow	St. Thomas Street, Weymouth.
Daniel, Harry Augustus Wood	Chasefields, Fishponds, near Bristol.
Heard, Herbert	Shepton Mallet, Somerset.
Hippisley, Edwin	Chamberlain Street, Wells.
Hussey, Frank Tooze	The Grove, Cheddon Fitzpaine, Taunton.
Munro, Philip	2, St. Stephen's Chambers, New Baldwin Street, Bristol.
Parsons, Henry	Misterton, Crewkerne.
Silcock, Thomas Ball	14, Abbey Churchyard, Bath.
Spackman, Henry	6, Terrace Walks, Bath.
Sturge, Robert Fowler	34, Corn Street, Bristol.
Sturge, William	34, Corn Street, Bristol.
Thomas, Josiah	Athenæum Chambers, Nicholas Street, Bristol.
Turnbull, Thomas John	Wimbourne St. Giles, near Cranborne.
Wainwright, Charles Rawlinson	Shepton Mallet.
Wainwright, Charles Rawlinson, Jun.	Shepton Mallet.

Local Distribution of Members.

BEDFORDSHIRE.

BEDFORD.

Fellows :—
Eve: John Richard.
Fenning: Herbert Samuel.
Stafford: Robert Barry.
Yeoman: George Dundas.

Professional Associates :—
Eve: Herbert Trustram.
Weston: Joseph Aurelius.

COTTON END.

Professional Associate :—
I'Anson: Bryan Walter.

MELCHBOURNE.

Fellow :—
Judd: Francis Savile Harry.

SILSOE.

Fellow :—
Trethewy: Henry.

BERKSHIRE.

ASCOT.

Fellows :—
Franklin: Thomas.
Franklin: William Taylor.

DIDCOT.

Fellow :—
Rich: Robert.

FARINGDON.

Fellow :—
Barfield: Frederic Henry.

HUNGERFORD.

Fellow :—
Neate: Arthur Webb.

NEWBURY.

Fellow :—
Neate: Arthur Webb.

Professional Associate :—
Few: Harry Garrard.

READING.

Fellows :—
Egginton: John.
Haslam: Dryland.
Peto: James Winder.
Shackel: George.
Wing: William.

WALLINGFORD.

Fellow :—
Gale: Joseph John.

Associate :—
Wells: Alfred Dodd.

WANTAGE.

Fellow :—
Adkin: Charles Duncan.

WOKINGHAM.

Fellow :—
Watts: James.

WINDSOR.

Fellows :—
Buckland: Frank Bowry.
Nottage: William Griggs.

BUCKINGHAMSHIRE.

HIGH WYCOMBE.

Fellow :—
Vernon: Arthur.

Professional Associate :—
Phillips: William Dearlove.

Associate :—
Clarke: Daniel.

LEIGHTON BUZZARD.

Professional Associate :—
Bruce: Robert Knight.

MAIDENHEAD.

Fellow :—
Cooper: Arthur Leslie.

NEWPORT PAGNELL.

Fellow: —
Samuel: William John.

STONY STRATFORD.

Fellow :—
Gotto: Frederick Edward.

WRAYSBURY.

Professional Associate :—
Flint: Leslie Sentance.

CAMBRIDGESHIRE.

CAMBRIDGE.

Fellows :—
Grain: Arthur Tress.
Jonas: John Carter.
Long: Edward Walter.
Rowe: Richard Reynolds.

Professional Associates :—
Jonas: Harry Marshall.
Jonas: Samuel Marshall.
Moyes: John Helenus.

ELM.

Professional Associate :—
Catling: Robert Charles.

ELY.

Fellow :—
Bidwell: Charles.

MARCH.

Fellow :—
Little: William Cutlack.

CHESHIRE.

BIRKENHEAD.

Fellow :—
Mills: William Edward.

CHESTER.

Fellow :—
Whalley: Henry Shaw.

Professional Associates :—
Taylor: Edward Sydney.
Whalley: Frederick Herbert.

ECCLESTON.

Fellow :—
Parker The Hon. Cecil Thomas.

CHESHIRE—*continued.*

KNUTSFORD.
Fellow :—
Smith: John Thompson.
Professional Associate :—
Halkyard: William Redford.

NANTWICH.
Professional Associate :—
Homfray: William Francis.

NORTHWICH.
Professional Associate :—
Tarleton: Roger.

CUMBERLAND.

PENRITH.
Fellow :—
Heskett: William James.
Professional Associate :—
Birkett: Tom.

WHITEHAVEN.
Fellow :—
Hudson: James.
Stanley-Dodgson: Stanley Dickinson.

DERBYSHIRE.

BUXTON.
Fellow :—
Hubbersty: Henry Alfred.

ALOW.
Professional Associate :—
Thorpe: Christopher.

CHESTERFIELD.
Fellows :—
Jeudwine: William Wynne.
Martin: Gilson.

DERBY.
Fellows :—
Bower: William John.
Brailsford: Henry.
Gratton: John Sterland.
Murray: Gilbert.
Parkin: John Robert.
Popplewell: William Willott.
Shaw: John,
Member of Council.
Wright: James.
Professional Associates :—
Fuller: Thomas Alfred.
McCallum: Peter Service.
Shaw: John, Jun.
Associate :—
Strutt: Frederick, The Hon.

SUDBURY.
Fellow :—
Fawkes: Algernon.

DEVONSHIRE.

BARNSTAPLE.
Fellows :—
Brown: George.
Smyth-Richards: George Cobley.
Thorne: Arnold.

BEERFERRIS.
Fellow —
Ward: Daniel.

BIDEFORD.
Fellow :—
Cooper: John Groves.

DEVONSHIRE—*continued.*

BRIDESTOWE.
Fellow :—
Ward: Frank.

BROAD-CLYST.
Associate :—
Acland: Sir Thomas Dyke, Bart.

EXETER.
Fellows :—
Drew: Henry.
Drew: John.
Dymond: Francis Williams.
Ware: Charles Edwin.
Professional Associates :—
Drew: Henry Alban.
Drew: John Gould.

DEVONPORT.
Associate :—
Venning: John James Edgcombe.

INSTOW.
Fellow :—
Lock: William Henry.

IVY BRIDGE.
Fellow :—
Elliott: Charles.

LUNDY ISLAND.
Professional Associate :—
Wright: Thomas Hawkins.

NEWTON ABBOT.
Fellow :—
Rendell: Arthur Stephen.

PAIGNTON.
Professional Associate :—
Pridham: John Lawrence.

PLYMOUTH.
Fellows :—
Body: John Bond.
Foster: Joseph Burgess.
Lethbridge: Walter.

PRINCETOWN.
Fellow :—
Watt: Alexander.

OTTERY ST. MARY.
Fellow :—
Winder: George Alexander.

TAVISTOCK.
Professional Associate :—
Rundle: Edward Collins.

TOTNES.
Fellow :—
Michelmore: Alfred.
Symons: Philip.

WEMBWORTHY.
Fellow :—
Tanner: James Melhuish.

DORSETSHIRE.

EVERSHOT.
Professional Associate :—
Wells: William Howley.

STALBRIDGE.
Fellow :—
Allen: George.

WEYMOUTH.
Fellow :—
Crickmay: George Rackstrow.

DORSETSHIRE—*continued.*

WIMBORNE.

Fellow :—
Turnbull: Thomas John.

Professional Associate :—
Campbell: Colin.

DURHAM.

DARLINGTON.

Fellows :—
Dent: Ralph John.
Eade: Arthur Willoughby French.
Minter: William.
Scarth: William T.
Waistell: William.

Professional Associate :—
Smith: George Cecil.

DURHAM.

Fellows :—
Wall: George Young.
Waistell: William.

Professional Associate :—
Rolandson: Christopher.

GATESHEAD-ON-TYNE.

Fellow :—
Wallace: Henry.

SEAHAM-HARBOUR.

Fellow :—
Brydon: Robert.

STOCKTON-ON-TEES.

Fellow :—
Curry: Henry John.

SUNDERLAND.

Fellows :—
Hedley: John Hunt.
Hedley: Thomas Fenwick.
Hedley: Thomas Fenwick, Jun.
Potts: Joseph, Jun.

ESSEX.

ARDLEIGH.

Fellow :—
Fenn: John.

BOREHAM.

Fellow :—
Moore: Harold Edward.

BRAINTREE.

Fellow :—
Vaizey: John George.

BRENTWOOD.

Professional Associate :—
Watson: James Bruce.

CASTLE HEDINGHAM.

Fellow :—
Balls: James Mayhew.

CHELMSFORD.

Fellows :—
Chancellor: Frederick.
Hilliard: George Bridge.

Professional Associates :—
Christy: Archibald Ernest.
Hilliard: George Edward.
Petre: The Hon. Henry William.
Phillips: George Cawkwell.

Associate :—
Gepp: Charles Bramston Osborne.

ESSEX—*continued.*

CHIGWELL.

Fellow :—
Savill: Alfred.

COLCHESTER.

Fellows :—
Bowler: William Anthony.
Fenn: John.

Professional Associates :—
Grimwade: Henry.
Lee: John Wilfrid.

EPPING.

Fellow :—
Sworder: Hugh.

ILFORD.

Professional Associate :—
Thompson: William.

INGATESTONE.

Fellow :—
Coverdale: Frederick John.

MALDON.

Fellow :—
Parker: Charles Alfred.

RAINHAM.

Fellow :—
Blewitt: Edward Robert.

SAFFRON WALDEN.

Fellow :—
Nockolds: Martin.

SOUTHEND-ON-SEA.

Professional Associate :—
Tapp: Arthur.

WITHAM.

Professional Associate :—
Strutt: The Hon. Edward Gerald.

WOODFORD.

Fellow :—
Kemsley: Joseph William.

Professional Associate :—
Parry: Richard.

GLOUCESTERSHIRE.

BRISTOL.

Fellows :—
Daniel: Harry Augustus Hood.
Munro: Philip.
Sturge: Robert Fowler.
Sturge: William,
Past-President.
Thomas: Josiah.

Professional Associates :—
Scammell: Thomas.
Sturge: Theodore.

CHELTENHAM.

Fellows :—
Cox: George James.
Sadler: George William.
Sanders: Thomas.

Professional Associate :—
Sadler: George William, Jun.

CIRENCESTER.

Fellow: —
Anderson: Robert, Jun.

Associate :—
Kinch: Edward.

GLOUCESTERSHIRE—*continued.*

GLOUCESTER.
Fellow :—
Knowles: William.
Professional Associate :—
Knowles: Henry.

MORETON-IN-THE-MARSH.
Fellow :—
Scovell: John.

STROUD.
Professional Associate :—
Pelham-Clinton: Hubert Edward.

HAMPSHIRE.

ANDOVER.
Fellows :—
Ellen: Frederick Charles.
Herbert: Allan.
Westbury: George Henry.
Westbury: Giles.
Professional Associate :—
Hooper: Alfred Frederick.

ALTON.
Fellow :—
Curtis: Charles Edward.

BASINGSTOKE.
Fellows :—
Raynbird: Hugh Edward.
Wallington: John Arthur Beach.
Professional Associate :—
Simmons: Charles Franklin.

BISHOP'S WALTHAM.
Professional Associate :—
Austin: Richard, Jun.

CRONDALL.
Associate :—
Seth-Smith: Frederick.

EAST TYTHERLEY.
Professional Associate :—
Robey: Robert.

FAREHAM.
Fellow :—
Clarke: Alfred Dudley.

FORDINGBRIDGE.
Fellow :—
Hannen: Reginald St. John.

MICHELDEVER.
Professional Associate :—
Pain: James.

PORTSMOUTH.
Fellow :—
King: Thomas.

PORTSEA.
Fellows :—
Blake: Frederick.
Hall: Ernest.
Kent: George Edward.
King: Thomas.
King: Sir William David.

RINGWOOD.
Fellow :—
Baird: Jonathan Peel.

RYDE.
Fellow :—
Newman Francis.

HAMPSHIRE—*continued.*

SOUTHAMPTON.
Fellows :—
Hill: William Burrough.
Jurd: William.
Lemon: James.
Professional Associates :—
Lomer: Montague Frank.
Perkins: Walter Frank.

SOUTHSEA.
Fellows :—
Kent: George Edward.
King: William David.

STOCKBRIDGE.
Fellow :—
Studdy: Thomas Edward.

TOTTON.
Professional Associate :—
Paterson: Andrew Thompson.

WEST COWES.
Fellow :—
Bird: James Binfield.

WINCHESTER.
Fellows :—
Comely: John Gill.
Harris: James.
Pickstock: John.
Professional Associate :—
Newton: Thomas Edwin.

WICKHAM.
Fellow :—
Smith: Charles Bovill.

HEREFORDSHIRE.

HEREFORD.
Fellows :—
Apperley: William Havard.
Brown: John Powles.
Haywood Henry.
Haywood: William Matthews.
Parker: John.
Professional Associate :—
Hewitt: William.

HERTFORDSHIRE.

KINGSLAND.
Fellow :—
Ward: John George Rodney.

BARKWAY.
Fellow :—
Adams: Charles Frederic.
Professional Associate :—
Balding: Albert.

BISHOPS STORTFORD.
Professional Associate :—
Robinson: Martin Catlin.

CHESHUNT.
Fellows :—
Crawter: John.
Debenham: Frank Gissing.

HEMEL HEMPSTEAD.
Fellow :—
Robinson: Nathaniel Wishart.

HERTFORD.
Fellow :—
Austin: Russell Gardiner.
Professional Associate :—
Shoppee: Conrad Joseph.

HERTFORDSHIRE—*continued.*

NEW BARNET.
Fellow :—
Taylor : Edward Fergusson.
Professional Associate :—
Hasluck : Lancelot Gerald.

ROYSTON.
Fellow :—
Thurnall : John Edward.

SAWBRIDGEWORTH.
Professional Associate :—
Crawley : William Jeeves.

ST. ALBANS.
Fellow :—
Harding : Sidney Longhurst.
Professional Associate :—
Low : Robert John.

TRING.
Fellows :—
Brown : William.
Foulkes : Septimus Giffard.

WARE.
Fellow :—
Beningfield : Henry.

WATFORD.
Fellow :—
Weall : John.
Professional Associates :—
Ayres : Charles Pryor.
Brown : William Edward.
Norris : Walter Henry.
Associate :—
Thomas : Hubert.

HUNTINGDONSHIRE.

CONNINGTON.
Fellow :—
Thomson : William Cunningham.

HUNTINGDON.
Fellow :—
Looker : John.

LOLWORTH-BY-ST. IVES.
Fellow :—
Daintree : John Osborn.

ST. NEOTS.
Fellow :—
Peppercorn : John Hutchinson.

KENT.

ASHFORD.
Fellows :—
Ballard : Edmund.
Waterman : James.
Professional Associates :—
Brown : Alexander
Burrows : Alfred John.
Reid : Francis.

AYLESFORD.
Fellow :—
Seymour : Richard Arthur Hamilton.

BECKENHAM.
Professional Associate :—
Hooker : Cecil Henry.

BEXLEY.
Fellow :—
Dann : Henry.

KENT—*continued.*

BROMLEY.
Fellows :—
Lepper : John Harrage.
Payne : Frederick.

CANTERBURY.
Fellow :—
Slater : George.
Professional Associate :—
Harvey : John James Sayer.

DOVER.
Fellows :—
Fry : George Frederick.
Hayward : Henry.

FARNINGHAM.
Professional Associate :—
Hodsoll : William, Jun.

FAVERSHAM.
Fellow :—
Neame : Frederick, Jun.

HIGHAM.
Fellows :—
Cobb : Robert Lake,
Member of Council.
Cobb : Herbert Mansfield.

IGHTHAM.
Associate :—
Luard : Major-Gen. Charles Edward.

LITTLE MONGEHAM.
Fellow :—
Wilks : Richard.

MAIDSTONE.
Fellows :—
Day : William, Jun.
Tootell : Charles.
Tootell : Joseph.
Troutbeck : Robert.
Waterman : Richard.

PLUCKLEY.
Fellow :—
Burrows : Alfred Joe.

ROLVENDEN.
Fellow :—
Neve : Herbert.

SEVENOAKS.
Fellows :—
Bigge : Charles Selby.
Cronk : Edwyn Evans.
Cronk : Frank.
Cronk : William Henry.
Professional Associate :—
Green : Thomas John.

SITTINGBOURNE.
Fellows :—
Jackson : William Tress.
Webb : George.
Professional Associate :—
Cowper : Richard William.

SUTTON-AT-HONE.
Professional Associate :—
Russell : James Elgar

TUNBRIDGE.
Professional Associate :—
Sturgess : John Moore.

KENT—*continued.*

TUNBRIDGE WELLS.
Fellows :—
Brackett: Arthur William.
Brackett: William.
Langridge: George.
Roper: William.

WINGHAM.
Fellow :—
Elgar: J. Edward.

LANCASHIRE.

ASHTON-UNDER-LYNE.
Fellow :—
Holmes: James.

BLACKBURN.
Fellows :—
Bertwistle: James.
McCall: George.

BURY.
Fellow :—
Farrar: James.

CLAYTON-LE-MOORS.
Fellow :—
Fletcher: Thomas.

DIDSBURY.
Professional Associate :—
Robinson: Alfred Whitmore.

LIVERPOOL.
Fellows :—
Lancaster: Charles Holland.
Pain: Coard Squarey.
Associate :—
King: William.

LEIGH.
Professional Associate :—
Selby: John Basely.

LYTHAM.
Fellow :—
Fair: Thomas.

MANCHESTER.
Fellows :—
Bridgford: Ernest James.
Bridgford: Robert, C.B.
Cross: John.
Dickson: Thomas Arthur.
Holden: John.
Jackson: Charles.
Nevile: Henry William.
Raby: Joseph Walker.
Raby: William.
Statter: Thomas.
Thompson: Edward James.
Wilson: Thomas Silk.
Professional Associates :—
Maxwell: Francis William.
Wilson: William Edward.
Associate :—
Higgin: William Housman, Q.C.

PRESTON.
Fellows :—
Fair: Jacob Wilson.
Harding: Joseph.
Park: William Philip.
Veevers: Richard.
Professional Associate :—
Johnston: Walter Henry.

LANCASHIRE—*continued.*

SCORTON.
Professional Associate :—
Bailey: Leonard.

ST. HELEN'S.
Fellow :—
Hanson: Amos.
Professional Associate :—
Booth: John Frederick.

WARRINGTON.
Fellow :—
White: John.

WIGAN.
Fellow :—
Fair: Jacob Wilson.

LEICESTERSHIRE.

ASHBY-DE-LA-ZOUCH.
Fellows :—
German: George.
German: John.

BLACKFORDBY.
Fellow :—
Joyce: John Hall.

HINCKLEY.
Fellow :—
Thorpe: William.

LEICESTER.
Fellows :—
Clare: Edward Lovell.
Clough-Taylor: Horace George.
Draper: Arthur Thomas.
Everard: John Breedon.
Rolleston: John Fowke Lancelot.
Professional Associate :—
Rolleston: Wm. Gustavus Stanhope.

LOUGHBOROUGH.
Fellows :—
Hodson: George.
Woolley: William Edward.
Professional Associate :—
Holbeche: Æmilian Henry.

MARKET HARBOROUGH.
Fellow :—
Fisher: Edward Knapp.
Professional Associate :—
Fisher: Charles Browning.

WOODHOUSE.
Fellow :—
Humphreys: Henry

LINCOLNSHIRE.

ALFORD.
Fellow :—
Higgins: Frederic.

BRIGG.
Fellows :—
Cave: Henry H.
Tindall: Charles William.

LEADENHAM.
Professional Associate :—
Crofts: Ewan Nevile.

LINCOLN.
Fellow :—
Woolley: Reginald.
Professional Associate :—
Beard: Edwin Thomas.

LINCOLNSHIRE—*continued.*

LOUTH.

Fellow :—

Mason : William Ludlam.

METHERINGHAM.

Fellow :—

Gilpin-Brown : William Dundas.

SPALDING.

Fellow :—

Kingston : Samuel.

ULCEBY.

Fellow :—

Turner : John.

WAINFLEET.

Fellows :—

Martin : James,
Member of Council.

Martin : Walter.

LONDON AND NEIGHBOURHOOD.

Fellows :—

Adams : Charles Frederick.
Adams : Henry.
Allen : Henry Robert.
Arding : Charles Bennett.
Badcock : Philip.
Barnes-Williams, Thomas.
Barry : Charles.
Battam : Frederick Thomas.
Bate : Thomas.
Beadel : William James,
Past-President.
Bedells : Charles Herbert.
Bedells : Charles King.
Beeston : Frederick.
Beken : George.
Bell : George Graham
Beningfield : Henry.
Berridge : Robert.
Bickerton : George Arthur.
Bigge : Charles Selby.
Bingham : Reuben.
Bird : James Binfield.
Bird : Walter.
Blackford : Arthur.
Blake : William John, Jun.
Blakemore : William Agutter.
Blashill : Thomas.
Bolam : Charles Godfrey.
Bolden : John Leonard.
Bond : Erasmus.
Bonny : James Rippoth.
Bontor : Frank Arthur.
Booker : Algernon Erskine.
Bovill : Alfred.
Boyes : Henry Cowell.
Bray : Harry.
Breach : Benjamin P'Anson.
Brereton : Franc Sadleir.
Brinsley : George.
Bridgewater : Bentley James
Brown : Bradshaw.
Brown : Daniel Johnson.
Brown : George James.
Brown : William Blumfield.
Burnell : Edward Henry.
Burnett : David.
Burroughes : Thomas Henry
Buzzard : Alfred Lindsey.
Carritt : Ernest.

LONDON AND NEIGHBOURHOOD—*continued.*

Fellows :—

Carpenter : Evan George.
Cartwright : George Kingsford.
Cartwright : Sir Henry Edward.
Cassell : James Robert.
Castle : Henry James, Sen.,
Castle : Henry James, Jun.
Castle : Sydney Charles Courtenay.
Castle : William Henry Baldwin.
Cates : Arthur.
Chadwick : Spencer.
Chancellor : Frederick.
Chesterton : Edward.
Cheston : Chester.
Chinnock : Frederick George.
Clark : Samuel.
Clarke : Howard Chatfeild.
Clarke : Thomas Chatfeild,
Vice-President.
Clifton : Edward Norton,
Past-President.
Clutton : Henry.
Clutton : John,
Past-President.
Clutton : John Henry.
Clutton : Ralph.
Clutton : Robert George,
Member of Council.
Cobb : Herbert Mansfield.
Cobb : Robert Lake,
Member of Council.
Collins : Henry Hyman.
Cook : Edward Samuel.
Cooper : John Thomas.
Crickmay : George Rackstrow.
Cronk : Edwyn Evans.
Cronk : Frank.
Cross : William Stephens.
Currey : Henry.
Curtis : Robert Leabon.
Curtis : Samuel Perkins.
Dale : John.
Dallas : Edwin Stuart.
Dash : Thomas Alexis.
Davis : James.
Daw : William Herbert.
Deacon : Thomas Mark.
Debenham : Frank Gissing.
Debenham : Thomas Nunn.
Dennant : William Freeth.
Denton : John Bailey.
Dinwiddy : Thomas.
Doll : Charles Fitzroy.
Dowden : Henry Joseph.
Dowling : Clement.
Downing : Frederick.
Driver : Charles William.
Driver : Robert Collier,
Vice-President.
Driver : Robert Manning.
Drury : Edward Dru.
Dunch : Charles.
Dunlop : Alexander Milne,
Member of Council.
Dyer : William John.
Eales : Frederick Ernest.
Eiloart : Frederick Edward.
Ellis : Henry.
Ellis : Richard Adam.
Ellis : Sir John Whittaker, Bart., M.P.
Emmanuel : Barrow.
Eve : William.
Eves : George.

LONDON AND NEIGHBOURHOOD—*continued.*

Fellows:—

Farmer: Edmund.
Field: James Frederick.
Field: Walter William.
Fleetwood: George.
Foster: Charles Rolls.
Fuller: Ernest.
Fuller: George John.
Fuller: Harry.
Furber: Herbert.
Furber: William.

Gairdner: Edward James.
Galsworthy: Frederick Thomas.
Gardiner: Edward James.
Gardiner: William James.
Garrard: Arthur,
Member of Council.
Gibb: William Pashley.
Gilbert: William Henry Sainsbury.
Girdwood: James.
Glasier: George Henry Brougham.
Goodchild: Josiah.
Gore: Spencer W.
Goulding: William Purdham.
Graves: Walter.
Green: Samuel.
Green: James.
Grellier, Harley Mair.
Grey: Charles Grey.
Gwyther: William Warlow.

Haddock: Roland.
Hall: John George.
Hall: Walter.
Hallett: William Brown.
Hamilton: Henry.
Hancock: William St. John Hii.
Hardcastle: Fredk. Henry Appleton.
Harding: Edward Ernest.
Harding: William Daniel.
Harman: James Ambrose.
Harrington: George Frederick.
Hart: William Frederick.
Haywood: William, Lieut.-Colonel
Heron: William Charles.
Hilton: John.
Hine: George Ernest.
Hobson: Frederick William.
Horne: William Edgar.
Horsey: Frederick.
Horsey: Thomas.
Hovenden: Thomas Henry.
Hudson: Arthur Byrne.
Hudson: William.
Hull: Charles.
Humphreys: Charles.
Hunt: Sir Henry Arthur, C.B.
Hunt: Henry Arthur, Jun.
Hunt: Josiah.
Huxley: Walter Freeman.

I'Anson: Edward Blakeway.
Inman: Marshall Nisbet.

Jenkinson: William Wilberforce.
Johnson: Henry.
Jonas: Henry.
Jones: Charles.
Jones: Charles Frederick.
Jones: Henry Arthur.
Joseph: Delissa.

LONDON AND NEIGHBOURHOOD—*continued.*

Fellows:—

Kedgley: Charles.
Keirle: Robert.

Lambert: William.
Lansdown: George.
Leane: George Henry.
Leaning: John.
Lee: Charles Williams.
Lee: Frederick.
Le Rossignol: Frances.
Lines: Richard Samuel.
Lightfoot: Francis Lowry.
Lofts: Henry.
Lovegrove: Henry.
Lovejoy: Alfred.
Lowe: Charles Harlowe.

Mann: Charles John.
Mann: Robert Wilks.
Marr: James.
Martin: George Dennis.
Martin: Howard.
Masterman: George Hughes.
Mathews: Joseph Douglas.
Matthews: William.
Maude: Raymond William.
Maylard: Charles Grason.
Maynard: Edward.
Miles: Matthew.
Millar: Charles William.
Monier-Williams: Stanley Faithfull.
Moore: Harold Edward.
Morris: John Warrington.
Mortimer: John Camden.
Mullett: Frederick Augustus.

Naylor: Arthur Millington.
Newmarch: Henry Charles.
Newman: Arthur Harrison.
Newson: Harry Carss.
Nichols: Daniel Cubitt.
Norman: James Maurice.
Norman: William.
North: George.
Notley: Richard Albert.
Notley: Robert Pledge.

Oakley: Christopher,
Member of Council.
Oakley: William.
Oborne: Alfred William.
Orgill: John Berwick.

Page: Robert.
Paull: Alan.
Parker: Charles Alfred.
Parr: Samuel.
Pattisson: Jacob Luard.
Paull: Alan.
Payne: Alexander.
Peck: Henry William.
Peck: William Roland.
Peebles: Alexander.
Penfold: John Wornham,
Honorary Secretary.
Pilditch: Philip Edward.
Pollard: Harry Emans.
Popplewell: William Willott.
Porter: Alfred.
Pownall: George Harry.

Read: George Huntly.

LONDON AND NEIGHBOURHOOD—*continued.*

Fellows:—

Reddall: David Gadsden.
Rees: William Andrew.
Reeves: Benjamin Austen.
Reid: Patrick Sandeman.
Rex: William.
Richards: Alfred.
Richards: Henry Brinley.
Rickman: Thomas Miller,
Member of Council.
Riddle: Frederick Henry Brimble.
Roberts: Richard.
Robins: Edward.
Robins: Edward Cookworthy.
Robinson: Charles Edward.
Robinson: Henry.
Robson: Edward Robert.
Rogers: Edward Phippard George.
Rogers: William Bennett.
Roods: Alfred.
Rushworth: Edmund Walter.
Rutley: Charles.
Ryde: Arthur Lyon.
Ryde: Edward,
Past-President.
St. Quintin: Perry.
Sanday: George Henry.
Robins: Edward.
Saunders: Cecil George.
Saunders: Edward.
Savill: Alfred.
Searle: Francis William.
Selby: Charles Frederic.
Sherrin: John Lester.
Sherwin: Joseph Henry.
Shoppee: Charles Herbert.
Shoppee: Charles John,
Vice-President.
Simms: Walter.
Smallpeice: George Baker.
Smith: Charles John.
Smith: Henry.
Smith: Henry Herbert.
Southwell: Charles Josiah.
Squarey: Elias Pitts,
Vice-President.
Squire: Richard.
Stanger: Caleb.
Stenning: Alexander Rose.
Stephenson: Charles William.
Stevens: William Charles.
Steward: Herbert Thomas.
Stock: Henry.
Stoner: Alfred.
Strudwick: Hayward James.
Strudwick: William Henry.
Tanner: Henry.
Tatham: George Henry.
Taylor: Edward Fergusson.
Tewson: Edward.
Tewson: Edward Arthur.
Theobald: Henry Wells Dewhurst.
Thompson: Arthur Edward.
Thurgood: Herbert John.
Thynne: Edward Lewis.
Thynne: Frederick George.
Thynne: Guy Harry.
Tolley: James.
Tootell: Richard William.
Treadwell: Henry John.
Trist: John William.
Trollope: Charles Brown
Trumper: Richard,

LONDON AND NEIGHBOURHOOD—*continued.*

Fellows:—

Tuckett: Philip Debell.
Tunley: George.
Vaizey: John George.
Venables: Frederick.
Vernon: Arthur.
Vernon: Walter Liberty.
Vigers: Astley.
Vigers: Edward.
Vigers: Francis,
Vice-President.
Vigers: Leslie Robert.
Vigers: Martin.
Vigers: Robert,
Member of Council.
Wakefield: Godfrey.
Walcott: Lyons Roden Sympson.
Walker: Edward Robinson.
Walker: Samuel.
Walmisley: Arthur Thomas.
Warner: William Henry.
Waters: William Richard.
Watney: Daniel,
Member of Council.
Watney: Walter Daniel.
Watts: Charles.
Weatherall: Henry.
Weaver: William.
Wharton: Thomas George.
Whitaker: George.
Whiteley: Charles Percy.
Widnell: Frederick Grainger.
Wilkinson: George Ayscough.
Wilkinson: William.
Wilson: Jacob.
Withall: Richard Augustus.
Wood: John Daniel.
Woods: Henry.
Wreathall: Robert T.

Professional Associates:—

Adkin: Beniah Whitley.
Baker: Cecil Cautley.
Ballard: William Washington.
Beadel: Henry Grant.
Beauchamp: Charles Davie.
Benson: Robert Alan.
Bidwell: Shelford.
Bishop: Reginald George.
Blunt: Herbert Arthur Scawen.
Boodle: Francis Edward.
Bousfield: Edwin Vaughan Davenport
Bradley: William.
Briggs: John.
Brown: William Arthur.
Browne: Flint.
Buckland: Alfred Virgoe.
Buckland: William Thomas.
Bushell: Henry.
Buss: Fleetwood George William.
Cardall: Frederic William.
Carter: Alfred Presley.
Carter: Frank Wellington.
Chapman: Vaughan Godfrey St. John.
Chester: William Richard.
Christy: Archibald Ernest.
Clarke: Percy Henry.
Clayden: Walter.
Clifton: William Edward.
Coales: Herbert George.
Collingham: J Cyril Lees.

LONDON AND NEIGHBOURHOOD—*continued.*

Professional Associates:—

Collins: Marcus E.
Cooke: William George.
Crawter: John, Jun.
Cresswell: John Theodore Ross.
Cross: John.
Cudlipp: William.
Cumberbatch: Carlton Parry.

Daffarn: Thomas Alfred.
Dansie: Frederick Crown.
Dash: Roland Ashford.
Davis: Charles James.
Dawson: Walter Henry.
Done: John James.
Drew: Allen.
Dunning: Bernard Simon.

Easton: Edward.
Eiloart: Alfred.
Ellis: Charles Godwin.
Ellis: Leonard Ashby.
Ellis: Ralph Staples.
Elwell: William Henry.
Evans: Tom Augustus John.

Fawcett: James Pogue.
Fitness: John Francis.
Fletcher: George Rivers.
Flint: William Hurst.
Freeman: Sydney.
Fuller: Herbert Henry.
Furber: Henry Aubrey.
Furber: Percy Norman.
Fyfe: George Peters Collier.

Gibbon: William Jacomb.
Gibson: Walter Matthew.
Gore: William Joll.
Gow: James.
Grant: Harry Græme.
Green: James Henry Townsend.
Green: Thomas Joseph.
Greenop: Edward.

Halton: Harry Russell.
Hamilton: John Paynter.
Hansell: Reginald Goddard.
Harding: Frederick Allcroft.
Harper: Edgar Josiah.
Hebden: George Radcliffe.
Hedger: Arthur Constantine.
Henderson: Henry Arthur.
Henry: Edward Hugh.
Hicks: Stanley.
Holland: Thomas James, Jun.
Holmes: James Thomas.
Hope: William Elliott.
Hopkins: Edwin.
Howell: Ernest John.
Hussey: George Henry Cleland.

Ingleby: Herbert.
Ingram: Henry Law.
Ivimey: Alfred.

Jessett: Charles.
Jones: Thomas.
Johnston: Andrew.
Jordan: George Henry.
Jull: William Vincent.

Keeling: Gilbert.
Keer: William.
Kettle Frederick Charles.
King: Alfred.

LONDON AND NEIGHBOURHOOD—*continued.*

Professional Associates:—

King: William Isaac.

Lawrence: William Robert.
Leonard: Henry Holmes.
Lightfoot: John George.
Lofts: Henry Fairlam.
Lovesay: William.
Lowe: Charles Robert.
Lucas: Joseph.
Lynch: James Henry.

Maddox: Charles Ralph.
Marriott: George Wharton.
Mead: John Henry.
Merrett: James.
Meston: Joseph Fyfe.
Milnes: Robert, Jun.
Mixer: Edward.
Moss: Thomas Walter.
Mylne: William John Home.

Newman: Charles Henry.
Norris: Edward James.

Page: Thomas Gowland.
Pearce: Frederick William.
Pearce: William John.
Perks: Sidney.
Perrers: Harry Wilson.
Pewtress: Herbert Wilmshurst.
Phillips: John Henry.
Physick: Walter Frederick.
Price: Thomas William.
Purchase: Edward Keynes.

Rex: Charles William.
Rex: Francis Herbert.
Rigden: Charles Furner.
Roberts: Charles.
Roberts: Charles Gordon.
Robinson: James Thomas.
Ross: David James.
Rüntz: Ernest Augustus.
Ryde: Charles Bertram.

Sabin: Joseph Henry.
St. Quintin: Richard Samuel.
Saunders: Samuel Brown.
Savill: Alfred, Jun.
Sexby: John James.
Shackle: Edward Neild.
Sherry: Nathaniel.
Skewis: Edwin.
Skingle: Alfred.
Slade: Isaac.
Smith: George Cecil.
Smyth: Edward,
Professional Associate of Council.
Stacey: William.
Stenning: Percy Haines.
Stevenson: Frederick J.
Stower: Joseph.
Swinscow: Harold Edwin.

Tapp: Arthur.
Taylor: George.
Theobald: Henry.
Thompson: Alfred.
Thurgood: Ernest Charles.
Trollope: Henry Charles.
Trumper: John Alfred.

Varley: Thomas Ernest.
Vigers: Sidney.

Walker: Leon Victor.

LONDON AND NEIGHBOURHOOD—*continued.*

Professional Associates :—

Wallis: John David.
Ward: George.
Warton: Wilfred.
Webb: Jonas Marshall.
Wells: Edward Ogbourn.
Weston: George.
Wheeler: Charles Trevor Ogle.
Wilcocks: Frederick C.
Wiles: William.
Willard: Thomas.
Williams: Leonard James.
Williams: Sidney.
Williams: Tom.
Willoughby: Charles William.
Wood: Henry.
Woodward: William.
Worthington: James Scott.
Wyand: Benjamin John.

Young: Andrew.
Young: Morgan Henry.

Associates :—

Anderson: Charles Henry, Q.C., M.P.

Bankes: John Eldon.
Barnes: George Frederick.
Barry: John Wolfe.
Associate of Council.
Batten: John Winterbotham.
Bazalgette: Charles Norman.
Beale: James Samuel.
Bidder: George Parker, Q.C.
Birch: Robert William Peregrine.
Bramwell: Sir Fredk. Joseph, F.R.S.
Bristowe: Arthur Lynn.
Bund: John W. Willis.

Carlisle: William Thomas.
Castle: Edward James, Q.C.
Clarke: Sir Edward, Q.C., M.P.
Clode: Walter.
Clutton: Hubert Spencer.
Cripps: Charles Alfred.

Dethridge: Frank.
Druce: Samuel Benjamin Large.

Elton: Charles Isaac, Q.C., M.P.

Fowler: Sir John.
Freeman: George Mallows.
Freshfield: Edwin.
Freshfield: William Dawes.

Goldney: Gabriel Prior.
Grantham: Richard Boxall.
Grantham: Richard Fuge.
Groves: William.
Gully: William Court, Q.C., M.P.

Halsey: Edward Joseph.
Hamilton: Henry Best Hans.
Hamond: Thomas Astley Horace.
Hill: Alexander Staveley, Q.C., M.P.
Hudson: Alfred Arthur.

James: Sir Henry, Q.C., M.P.

Ledgard: Frederick Thos. Durell, Q.C.
Littler: Ralph Daniel Makinson, Q.C.
Lott: Joseph.

Marriott: The Right Hon. Sir William Thackeray, Q.C., M.P.

LONDON AND NEIGHBOURHOOD—*continued.*

Associates :—

Marshall: Frederick.
Meysey-Thompson: Albert Childers
Michael: William Henry, Q.C.
Munton: Francis Kerridge.

Philbrick: Frederick Adolphus, Q.C.
Pollard: Edward Hutchinson.
Pope: Samuel, Q.C.
Potter, William, Q.C.
Procter: Foster Wilfred.

Quick: Joseph.

Rees: John Charles.
Rickards: Arthur George.
Rigg: Herbert Addington.
Ryde: Walter Cranley.

Shield: Hugh, Q.C.
Shoppee: Gerald Augustine.
Sladen: St. Barbe.
Smith: Lumley, Q.C.
Statham: William Arnold.
Stephens: Pembroke S., Q.C.
Stevens: William Richard.
Stevenson: George Wilson.
Sutton: Henry.

Taylor: John Herbert.
Trollope: George Francis.

Warren: Reginald Augustus.
Webster: Sir Rchd. Everard, Q.C., M.P.,
Associate of Council.
Wheeler: Thomas Whittenbury, Q.C.
White: Frederick Meadows, Q.C.
White: Thomas Jennings.
Will: John Shiress, Q.C., M.P.
Winckworth: Lewis.
Wing: Thomas Twining.
Woolf: Sidney.

MONMOUTHSHIRE.

NEWPORT.
Fellows :—
Graham: William.
Hitchcox: William.
Rees: William George.
Professional Associate :—
Tanner: William.

NORFOLK.

COSSEY.
Fellow :—
Coverdale: Henry.

DOWNHAM.
Fellow :—
Hawkins: Charles.

EAST RAYNHAM.
Professional Associate :—
Gayford: Henry John.

KING'S LYNN.
Fellow :—
Wright: William Edward.

MELTON-CONSTABLE.
Fellow :—
Beck: Edward William.

NORFOLK—*continued.*

NORWICH.
Fellows :—
Hornor: Charles Jared.
Hornor: Francis.
Mills: Samuel Mealing.
Rogers: Ernest Edward.
Rose: Thomas.

SANDRINGHAM.
Fellow :—
Beck: Edmund.

SCOLE.
Professional Associate :—
Scriven: Charles Herbert.

THETFORD.
Fellow :—
Barker: Caleb.
Professional Associate :—
Hall: Charles Pell.

WEST RUDHAM.
Fellow :—
Freuer: William.

NORTHAMPTONSHIRE.

HORTON.
Fellow:—
Cave: Thomas Newman.

KETTERING.
Fellow :—
Bolam: Charles Godfrey.

NORTHAMPTON.
Fellow :—
Law: Edmund.

OUNDLE.
Fellow :—
Parnell: Robert.

PETERBOROUGH.
Fellows :—
Edwardes: Charles Bidwell.
Laurance: John.
Professional Associate :—
Lyster: Thomas Rice Somerville.

NORTHUMBERLAND.

ALNWICK.
Fellows :—
Tomlinson: Thomas.
Wilson: Jacob.

BOTHAL.
Fellow :—
Sample: Thomas.

NEWCASTLE-UPON-TYNE.
Fellows :—
Armstrong: Thomas John.
Bolam: William Thomas.
Parmeter: Frank.
Taylor: John William.

NOTTINGHAMSHIRE.

EAST BRIDGFORD.
Fellows :—
Beaumont: Charles.
Beaumont: George.

EPPERSTONE.
Fellow :—
Huskinson: William Lambe.
Professional Associate :—
Huskinson: Thomas William.

NOTTINGHAMSHIRE—*continued.*

MANSFIELD.
Fellows :—
Neale: Charles James.
Turner: Frederick John.
Professional Associate :—
Butterworth: Josiah.

NOTTINGHAM.
Fellows :—
Barnes: John William James.
Evans: Robert.
Hine: George Thomas.
Jackson: Frederick.
Walker: Herbert.
Professional Associate :—
Payne: William Percy.

OLLERTON.
Fellow :—
Bell: Joseph Askew.

OSBERTON.
Fellow :—
Lister-Kaye: Charles Wilkinson.

RETFORD.
Fellow :—
Birkett: William.

SOUTH COLLINGHAM.
Fellows :—
Wigram: John.
Woolley: Reginald.
Woolley: Thomas Cecil Smith.

WOLLATON.
Fellow :—
Wright: William.

OXFORDSHIRE.

BANBURY.
Fellow :—
North: George Frederic.

BICESTER.
Fellows :—
Castle: George Richard.
Holiday: Frederick Dean.
Little: William Davis.
Paxton: Edward Hayton.

HENLEY-ON-THAMES.
Fellow :—
Beever: William Frederick Holt.
Professional Associates :—
Simmons: Charles Franklin
Simmons: William Anker.

KIRTLINGTON.
Professional Associate :—
Dashwood: Frederick Loftus.

OXFORD.
Fellows :—
Castle: Robert.
Egerton: Hubert Decimus.
Field: Francis Hayward.
Galpin: Charles Alexander.
Galpin: John.
Professional Associate :—
Rose: Edward Joseph.

TETSWORTH.
Fellows :—
Watson: John.
Professional Associate :—
Watson: John, Jun.

OXFORDSHIRE—*continued.*

WITNEY.
Professional Associate :—
Bateman : Arthur Charles.

SHROPSHIRE.

BROSELY.
Fellow :—
Thursfield : Thomas Howells.

BRIDGNORTH.
Fellow :—
Wyley : Henry James.

CHIRBURY.
Fellw :—
Morris : Edward Henry.

CLEOBURY NORTH.
Fellow :—
Dodgson : Wilfred Longley.

ELLESMERE.
Fellow :—
Tower : Brownlow Richd. Christopher.

LUDLOW.
Fellow :—
Dodgson : Wilfred Longley.

OSWESTRY.
Fellow :—
Williams : William.

SHIFNAL.
Fellow :—
Lane : Cecil Newton.

SHREWSBURY.
Fellows :—
Burd : Laurence.
Evans : William Ernest.
Swettenham : William Norman.
Wyley : William John.
Professional Associate :—
Salt : Reginald Nowell.

UPPINGTON.
Professional Associate :—
Hall : William Timothy.

SOMERSETSHIRE.

BATH.
Fellows :—
Silcock : Thomas Ball.
Spackman : Henry.

BRUTON.
Fellow :—
Bennett : Thomas Oatley.

CREWKERNE.
Fellow :—
Parsons : Henry.
Professional Associate :—
Parsons : Robert Maurice Peters.

SHEPTON MALLET.
Fellows :—
Heard : Herbert.
Wainwright : Charles Rawlinson.
Wainwright : Charles Rawlinson, Jun.

TAUNTON.
Fellows :—
Hussey : Frank Tooze.
Knollys : James Edward.

WELLS.
Fellow :—
Hippisley : Edwin.

STAFFORDSHIRE.

ENDON.
Fellow :—
Heaton : George Herbert.

LICHFIELD.
Fellow :—
Inge : Charles Henry.

LITTLE INGESTRE.
Fellow :—
Mynors : Walter Charles Towers.

MARCHINGTON.
Fellow :—
Hardy : Richard Thomas Ash.

NEWBOROUGH.
Professional Associate :—
Hussey : Robert.

STAFFORD.
Fellows :—
Sandy : Henry.
Turnor : Exsuperius Weston.
Associate :—
Hill : Alexander Staveley, Q.C., M.P.

STOKE-UPON-TRENT.
Fellow :—
Forshaw : Edward.
Professional Associate :—
Blundell : Harry.

SUFFOLK.

BURY ST. EDMUNDS.
Fellow :—
Scott : Henry Lacy.

HORSECROFT.
Fellow :—
Simpson : Robert Thomas.

IPSWICH.
Fellow :—
Turner : William.
Professional Associates :—
Bond : Frederick George.
Turner : Percy.

LAVENHAM.
Fellow :—
Biddell : William.

NEWMARKET.
Professional Associate :—
Boa : Andrew.

SHOTLEY.
Fellow :—
Spurling : Henry.

SUDBURY.
Fellows :—
Coote : George.
Coote : John.

WOODBRIDGE.
Professional Associate :—
Arnott : John.

SURREY.

CHERTSEY.
Professional Associate :—
Waterer : Clarence.

EGHAM.
Fellow :—
Menzies : William.

SURREY—*continued.*

ENGLEFIELD GREEN.
Fellow :—
Simmonds: Frederick.

FARNHAM.
Fellows :—
Eggar: James Alfred.
Nash: Alfred James.
Professional Associate :—
Williams: William Welsby.

GODALMING.
Fellow :—
Mellersh: Alfred William.

GUILDFORD.
Fellows :—
Bowles: Arthur Humphrey.
Drewitt: George.
Ellis: Ernest Harold.
Lee: William.
Messenger: William Harry.
Smallpiece: George Baker.

LEATHERHEAD.
Fellow :—
Noel: Byron Bruce.

LINGFIELD.
Professional Associate :—
Golightly: Charles Hugh.

REDHILL.
Fellow :—
Stacey: Harrie.

REIGATE.
Fellows :—
Clutton: Henry.
Clutton: Ralph William.
Lees: John.
Pym: George Edwin.
Professional Associates :—
Collier: Arthur Charles.
Garrod: Herbert James.
Rand: John.
Thornton: William Henry.
Associate :—
Head: John Merrick.

RICHMOND.
Fellow :—
Chancellor: Albert.

WIMBLEDON.
Fellow :—
Oborne: Alfred William.

SUSSEX.

BRIGHTON.
Fellows :—
Wilkinson: Thomas.
Wood: Frederick.

CHICHESTER.
Fellows :—
Hobgen: Francis Neale.
Wyatt: Oliver Newman.

CRAWLEY.
Fellow :—
Wood: William.
Professional Associate :—
Taylor: George.

EASTBOURNE.
Professional Associate :—
Woolnough: John William.

SUSSEX—*continued.*

HAILSHAM.
Fellow :—
Burtenshaw: Albert.

HASTINGS.
Fellows :—
Dray: Alfred.
Vernon: Walter Liberty.
Vidler: James Coleman.
Woodhams: James.

HAYWARD'S HEATH.
Fellow :—
Bannister: Thomas.

HORSHAM.
Fellow :—
King: Frank Hulme.

LEWES.
Fellows :—
Card: Henry Curtis.
Colgate: Thomas, Jun.
Ingram: Walter Fielde.
Morris: Herbert.
Powell: Reginald Henry.
Professional Associates :—
Card: Henry.
Powell: Hubert John.

MAYFIELD.
Professional Associate :—
Crosland: Walter.

PETWORTH.
Fellow :—
Watson: Herbert Edward.
Professional Associate :—
Taylor: Matthew.

PRESTON.
Professional Associate :—
Udny: Augustus Charles.

PULBOROUGH.
Professional Associate :—
Courthorpe: Alexander.

ROTHERFIELD.
Professional Associate :—
Crosland: Walter.

RYE.
Fellow :—
Vidler: James Coleman.

SEAFORD.
Fellow :—
Turner: William Webb.

UCKFIELD.
Professional Associate :—
Scarlett: Harry.

WARWICKSHIRE.

ALCESTER.
Fellow :—
Raikes: Col. George Whittington.

BIRMINGHAM.
Fellows :—
Bettridge: Edward.
Clarke: Richard.
Couchman: Robert Edwadr.
Fowler: Henry.
Fowler: Richard.
Godfrey: Robert.
Hedley: Robert Wilkin.

WARWICKSHIRE—*continued.*

Fellwos :—
Hendriks : Henry.
Holbeche : Robert Neville.
Mason : William Arthur.
Mathews : George Spencer.
Mathews : William.
Robins : William Henry.
Roderick : John.
Smith : Frank.
Smith : William Charles Henry Alston.
Willmot : John.
Willmott : Francis.

Professional Associate :—
Couchman : Henry Boteler.

FARNBOROUGH.
Professional Associate :—
Prater : Thomas Herbert.

LEAMINGTON.
Fellow :—
Fayerman : George Metcalfe.

LEEK WOOTTEN.
Fellow :—
Donne : Henry.

WARWICK.
Fellows :—
Fosbery : William Thomas Exham.
Margetts : John William.

WESTMORELAND.

KENDAL.
Fellow :—
Webster : Alexander.

KIRKBY LONSDALE.
Fellow :—
Punchard : Frederick.

MILNTHORPE.
Fellow :—
Holme : John.

WILTSHIRE.

CHIPPENHAM.
Fellows :—
Marshall : Lionel Hasler.
Smith : Henry Herbert.

Professional Associate :—
Watkins : Robert Arundel.

DEVIZES.
Fellow :—
Canning : William Browne.

DOWNTON.
Fellow :—
Squarey : Elias Pitts,
President.

Associate :—
Fream : William.

MARLBOROUGH.
Fellow :—
Jeans : Mark.

PEWSEY.
Fellow :—
Ferris : George.

SALISBURY.
Fellows :—
Bath : Fred.
Canning : William Browne.

WILTSHIRE—*continued.*

Fellows :—
Gater : Caleb William.
Rawlence : Ernest Alfred.
Rawlence : James.
Rigden : Henry William.
Rigden : John Lambe.
Squarey : Elias Pitts,
President.

TISBURY.
Fellow :—
Lightfoot : Henry Le Blanc.

WARMINSTER.
Fellows :—
Cruse : Edmund.
Jones : Henry Parr.

WORCESTERSHIRE.

EVESHAM.
Fellow :—
Smith : William.

STOURBRIDGE.
Fellows :—
Fiddian : William.
King : Henry.

Professional Associate :—
Barratt : Harry.

WORCESTER.
Fellow :—
Buck : Albert.

YORKSHIRE.

BARNSLEY.
Fellow :—
Wade : John.

Professional Associate :—
Wade : Henry.

BINGLEY.
Fellow :—
Armistead : Richard.

BOOTHAM.
Professional Associate :—
Kerr : Arthur Herbert.

BRADFORD.
Fellows :—
Cowgill : William.
Murray : Robert Little.
Smith : Joseph.

Professional Associate :—
Smith : Wheater.

DONCASTER.
Fellow :—
Darley : William.

Professional Associate :—
Peace : Alfred Lindley.

DRIGHLINGTON.
Fellow :—
Clare : Edward Lovell.

GOOLE.
Professional Associates :—
Tudor : Colin Augustus Buchanan
Tudor : Edward Charles Buchanan

YORKSHIRE—*continued.*

HALIFAX.
Fellow :—
Horsfall: Richard.
Professional Associate :—
Hebblethwaite: Charles Henry

HESLINGTON.
Professional Associate :—
Melrose: Frank.

HUDDERSFIELD.
Fellow :—
Brook: James.
Professional Associates :—
Demetriadi: Thomas Marsden.
Shaw: Arthur.

HULL.
Fellows :—
Botterill: William.
Fryer: George.
Hebblethwaite: Louis.
Tiffen: Joseph.
Todd: William Henry.
Professional Associate :—
Tiffen: John Henry.

KINGSTON-UPON-HULL.
Fellow :—
Wellsted: William Henry.

LEEDS.
Fellows :—
Hepper: John.
Jones: James William.
Newsam: Samuel Waterhouse.
Oldroyd: Linley.
Richardson: John.

NORTON.
Fellow :—
Abbott: Robert Thomas G.

PENISTONE.
Professional Associate :—
Hinchcliffe: John, Jun.

REDCAR.
Fellow :—
Rutherford: James.

SHEFFIELD.
Fellows :—
Flockton: Thomas James.
Fowler: Frederick.
Innocent: Charles John.
Scargill: Alfred.
Professional Associate :—
Massie: Frank.

WAKEFIELD.
Fellow :—
Kaye: John Edward.

YORK.
Fellows :—
Clutton: William James.
Fryer: George.
Watson: Herbert Edward.
Professional Associate :—
Lee: George Cansfield.

IRELAND.

DONEGAL.
LETTERKENNY.
Fellow :—
Murphy: Edmund.

WESTMEATH.
ATHLONE.
Professional Associate :—
Millward: Isaac.

SCOTLAND.

BERWICKSHIRE.
COLDSTREAM.
Associate :—
Scott: Henry Robert, The Hon.

EDINBURGH.
EDINBURGH.
Fellow :—
Paterson: Robert.
Professional Associate :—
Henderson: Richard.

FORFARSHIRE.
DUNDEE.
Fellow :—
Buchan: Thomas.

LANARKSHIRE.
GLASGOW.
Fellows :—
Binnie: Thomas.
Smellie: Thomas Davies.

WALES.

CARMARTHENSHIRE.
LLANDILO.
Fellow :—
Davies: John Morgan.

LLANELLY.
Fellow :—
Rosser: William.

CARNARVONSHIRE.
BANGOR.
Fellow :—
Dew: William Arthur.

CRICCIETH.
Fellow :—
Jones: Walter Butler Clough.

FLINTSHIRE.

WHITFORD.
Fellow :—
Pickering: William Cloves.

GLAMORGANSHIRE.

CARDIFF.
Fellows :—
Blosse: Edward F. Lynch.
Brown: Thomas Forster.
Waring: Charles Edward.
Waring: Thomas.

ELY.
Fellow :—
Phillips: Frederick Hamilton.

NEATH.
Fellow :—
Sheppard: Osborne.

LLANDAFF.
Fellow :—
Williams: William Herbert.
Professional Associate :—
David: Edmund Ussher.

ST. FAGANS.
Fellow :—
Forrest: Robert.

MERIONETHSHIRE.

BALA.
Fellow :—
Williams: John.

MONTGOMERYSHIRE.

KERRY.
Fellow :—
Poundley: John Edward.
Professional Associates :—
Birch: Walter de Hoghton.
Swetenham: Henry.

LLANIDLOES.
Fellows :—
Grant: James.
Powell: Evan.

MACHYNLLETH.
Fellow :—
Gillart: Richard.

MONTGOMERYSHIRE—*continued.*

WELCH POOL.
Fellow :—
Addie: William Forrester.

PEMBROKESHIRE.

HAVERFORDWEST.
Fellow :—
Owen: Thomas Rule.
Professional Associate :—
Owen: Thomas Henry.

RADNORSHIRE.

RHAYADER.
Fellow :—
Williams: Stephen William.

FOREIGN PARTS.

ALEXANDRIA.
Professional Associate :—
Satchell: Charles.

CEYLON.
Professional Associate :—
Thornton: William Henry.

CHINA.
Fellow :—
Arch: Arthur Joseph Edwin.

COSTA RICA.
Associate :—
Jongh: John Isidore de.

GRAND CANARY.
Professional Associate :—
Wight: Norman.

NATAL.
Fellow :—
Rigden: John Lambe.

TRINIDAD.
Professional Associate :—
Dobie: Henry.

QUEENSLAND.
Professional Associate :—
Callendar: William Jackson.